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From the Editor's Desk...

Not too much to carry on about this week other than COMDEX!! The new products, the updates and the full upgrades are flowing like crazy. Windows 95, much to the disappointment of those who wish it would go away, has become the standard of most everyone using the PC. And I might add, with good reason. The speed, ease of use and sheer pleasure of using it makes the slight effort of becoming accustomed to Win95 hardly noticeable. If you are considering making the change and are slightly hesitant due to the ranting and raving of the DOS Babies and "OU2" zealots. hesitate no longer. Make a real change for the positive in your computing productivity and fun. Get started with Win95.

The coming mode of communications is ISDN, in this issue, we begin the second phase of our ISDN coverage. Much of what we have is courtesy if the Compuserve ISDN Forum. Talk about having the "latest skinny" on what's happening with ISDN worldwide this forum has it. We have been working on an interview with one of Bell South's Head Engineers. So far, what he's had to offer in the way of the very near future, as far as Ma Bell is concerned, makes the Star Wars Initiative antique!

Of Special Note:

<http://www.streport.com>

STReport is now ready to offer much more in the way of serving the Networks, Online Services and Internet's vast, fast growing site list and userbase. We now have our very own WEB/NewsGroup/FTP Site and although its in its early stages of construction, do stop by and have a look see. Since We've received numerous requests to receive STReport from a wide variety of Internet addressees, we were compelled to put together an Internet distribution/mailing list for those who wished to receive STReport on a regular basis, the file is ZIPPED, then UUENCODED. Unfortunately, we've also received a number of opinions that the UUENCODING was a real pain to deal with. So, as of October 01,1995, you'll be able to download STReport directly from our very own SERVER & WEB Site. While there, be sure to join our STR list. In any case, our current Internet mailing list will continue to be used for at least the next eight weeks. Each of our readers will have by then, received their information packet about how they may upgrade their

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LATE BREAKING INDUSTRY-WIDE NEWS

STReport Headline News
Weekly Happenings in the Computer World

Compiled by: Dana P. Jacobson

AT&T, Novell Enter Pact

An agreement has been reached by AT&T to integrate its dial-up Internet service with Novell Inc.'s PerfectOffice suite of desktop software. Reporting from Basking Ridge, New Jersey, the Reuter News Service says the deal means Novell users will be able to access the Internet from their PCs at the touch of a button, once AT&T's WorldNet service is commercially available early next year. WorldNet is currently in beta testing, Reuters adds.

Daniel Eilers Leaves Apple

The latest victim in the current management shakeup at Apple Computer Inc. is Daniel Eilers. Considered one of Apple's most powerful executives and a key strategist of late, Eilers has resigned after reported differences with CEO Michael Spindler. The 40-year-old Eilers' departure comes just weeks after chief financial officer Joseph A. Graziano resigned when he failed to

persuade Apple's board to sell or merge the company. Writing in the Wall Street Journal this morning, reporter Jim Carlton quotes industry executives close to the company as saying Eilers sided with Graziano, alienating him from Spindler who, along with the board, rejected such a move.

"The executives say that Mr. Eilers, head of Apple's world-wide marketing, was forced to resign after Mr. Spindler shifted the responsibility for marketing from Mr. Eilers to Apple's various regions around the world," Carlton writes. "Another executive said Mr. Eilers supported the marketing breakup, but resigned when he found it left him without his job." Carlton says the loss of Eilers "could prove acute for Apple," noting that like Graziano, Eilers "was highly respected in the organization, having worked in the executive ranks for about 12 years." Earlier this year, following another shakeup when Vice President Ian W. Diery was forced out of his job by Spindler, Eilers was promoted from his stewardship of Apple's Claris software unit to coordinate all of the company's marketing efforts.

"The move," says the Journal, "put him in a position of power second only to Mr. Spindler, along with Mr. Graziano and David Nagel, a software chief who then was elevated to run engineering. Mr. Eilers' name, in fact, had surfaced recently in industry circles as one who might be named to succeed Mr. Spindler, should the chief executive ever be replaced."

Ian Diery Tapped to Lead AST

Former Apple Computer Inc. executive Ian W. Diery has been named the new president/CEO of struggling computer maker AST Research Inc. In this morning's Wall Street Journal, reporter Jim Carlton says AST also now indicates it may let its biggest shareholder, South Korea's Samsung Electronics Co., take control of the company. Carlton characterizes these "surprise moves" by AST as "a bold admission it needs outside help to survive."

Late yesterday the Irvine, California, company also reported a larger-than-expected loss of \$96.4 million for the fiscal first period ended Sept. 30. The Journal notes that the loss of \$2.36 a share compares with a loss of \$39.4 million, or \$1.22 a share, for the same period a year earlier. Revenue fell 19 percent to \$403.4 million from \$495.4 million. "The results," says the paper, "bring to six the number of consecutive quarters in which AST has lost money amid a cascade of problems that have included new product delays, component shortages and its inability to digest a \$175 million acquisition of Tandy Corp.'s personal computer business about two years ago."

Carlton says in bringing in Diery to run AST, Safi Qureshey's influence over the company he co-founded "is greatly diminished," adding the 44-year-old Qureshey will remain as chairman, "but relinquishes most control of the company to Mr. Diery." On Diery's performance at Apple, Carlton notes that the charismatic Australian, who was forced out of Apple last April in a restructuring by Apple CEO Michael Spindler, "proved a fiery, combative general who earned praise from some analysts for his operational ability but criticism from others for short-sightedness in areas such as Apple's need to license its Macintosh operating system."

However, observers think Diery could be just the person to turn AST around. Consultant Tim Bjarin told the paper, "Diery comes in with a very strong vision of the personal-computer industry. This means that Safi's method of guiding the company has not worked and they have to have someone of Diery's caliber to get them out of the hole."

Eilers Says He Wasn't Forced Out

Daniel Eilers says he is not being forced out of his top-level executive post at Apple Computer Inc., that his resignation was his idea. As reported yesterday, Eilers, considered one of Apple's most powerful executives and a key strategist of late, has resigned after reported differences with CEO Michael Spindler. Some observers think tension between Eilers and Spindler could have surfaced as Eilers apparently sided with Joseph Graziano, Apple's

chief financial officer who quit last month after failing to persuade Apple's board to sell or merge Apple in order to boost market share.

However, Eilers has told Susan Moran of the Reuter News Service, "Some people think there's this Byzantine plot related to Graziano. Exactly what Joe's mission was I can't tell you ... but no, I've not been advocating selling. In a way, I've worked myself out of a job, but it's the right thing for the company."

He adds that he firmly advocated Apple's decision, also announced earlier, to restructure its marketing and sales operations in order to boost efficiency and become more customer based. Eilers, who was promoted last April to head the worldwide marketing and customer solutions organization, says, "We've asked ourselves over the last six months what's the most effective way to get sales and marketing activities done at Apple. The conclusion was we needed to hardwire sales and marketing together and become closer to customers in particular geographies."

That means decentralizing, which leaves Eilers jobless, he says. Eilers said Spindler asked him to stay on but in a lesser role, "not because they were demoting me but because there wasn't anything. Frankly, I appreciated it, but I've become accustomed to the responsibilities I've had. And the pyramid gets narrower at the top." He told Reuters that Apple's board, which met last month, discussed the issue and that the reorganization and his departure were decided "over the last couple weeks." He says he will stay through the transition, possibly until sometime in December. Meanwhile, he only said he has been fielding calls from headhunters," Reuters says.

Apple Licenses Newton Technology

Apple Computer Inc., looking to further expand its personal digital assistant (PDA) technology into specialized markets, is licensing its Newton platform to a pair of firms. Schlumberger Electronic Transactions of Montrouge, France, and Digital Ocean of Lenexa, Kansas, will separately offer products based on Newton technology. The agreements' terms weren't revealed.

Schlumberger Electronic Transactions, a division of Schlumberger Ltd., plans to use the Newton technology in integrated "smart card" systems, which are designed to automate medical transactions. Digital Ocean Inc., which specializes in wireless connectivity products, will combine the Newton platform and Global Positioning System (GPS) and wireless communications technologies into products for the manufacturing, transportation, health care and services industries. "The support of our licensees is critical to the proliferation of the Newton platform as the standard for PDAs," says Sandy Benett, acting vice president of Apple's Newton Systems Group. "With the addition of Digital

Ocean and Schlumberger as Newton licensees, we expect to see an expansion in the range of innovative new solutions based on the Newton platform."

HP, Apple Linked in Rumors

There's no official comment, of course, but Wall Street is thinking again that Apple Computer Inc. is a takeover candidate. This time, Hewlett-Packard Co. is being cast as the suitor. From Los Angeles, the Reuter News Service says Apple isn't talking. "I can't speculate or comment on any rumors about mergers, acquisitions or takeovers," a spokeswoman told the wire service. Earlier yesterday, a Hewlett-Packard spokeswoman also declined to comment on the rumors. As reported earlier, insiders have said IBM was close to buying Apple last summer. Also analysts have cited other companies over the past several months as potential bidders for Apple, including AT&T, Oracle Corp., and Japan's Canon Inc.

Maxtor Accepts Hyundai Buyout

Disk drive maker Maxtor Corp. has agreed to a \$223 million buyout from Hyundai Electronics Industries for the 63 percent of the company that the

South Korean firm does not already own. As reported, Maxtor agreed earlier this year to sell 37 percent of itself to Hyundai for \$150 million. This time, Hyundai has agreed to pay \$6.70 a share for the 33.3 million shares of Maxtor it does not own, according to United Press International in a report from San Jose, California.

The wire service notes that Hyundai twice has sweetened its buyout offer. Earlier this week, it offered \$6.15 a share, or \$204 million, after Maxtor spurned a bid of \$5.15 a share, or \$171 million. UPI says a special committee of its board, composed entirely of non-management directors not affiliated with Hyundai, decided to agree to Hyundai's latest offer on a unanimous vote. Maxtor, UPI comments, "has been scrambling to account for older products that have lost value in recent years amid brutal price cutting and a rush to release higher-capacity drives."

Last week the company announced a loss of \$44.5 million for its second quarter ended Sept. 30, narrower than a loss of \$54.7 million in the year-ago period. Revenues were off 10.9 percent to \$281.4 million from \$315.9 million in the year-ago quarter.

Radius Inc. Cuts 150 Jobs

Macintosh clone maker Radius Inc. says it will lay off nearly one-third of its staff -- some 150 workers -- and post an operating loss of \$25 million to \$30 million in its fourth fiscal quarter, which ended in September. Reporting from Sunnyvale, California, the Reuter News Service quotes company officials as saying the firm will incur restructuring charges "at least equal" to that amount in the quarter.

The latest staff cuts come just a week after Radius gave pink slips to 90 employees. Reuters says the cutbacks are geared to focus the company's business on the graphics, digital video, and other markets. Radius says it will discontinue selling mass market displays and other low value-added products. A spokeswoman told the wire service the firm will have about 170 staff members after the layoffs. Radius says it will focus on "next generation" digital video tools, 3-D graphics cards, and rendering acceleration.

"Among the changes," says Reuters, "it will sell high-resolution monitors rather than general purpose ones, and will not sell CPU's as aggressively." Radius official Dee Cravens blames the company's travails on Mac maker Apple Computer Inc., which has had its own problems recently with executive defections, supply constraints, and margin pressure due to competitive price cuts.

Says Cravens, "This should be a clear signal to Apple that this is not healthy for both of us," adding Apple did not understand the licensing process and was too intent on making money from the hefty licensing fees that it charges Radius. Cravens says Apple should focus on getting more market share for Apple-related products by charging a nominal fee, pointing to the dearth of other companies making Macintosh clones.

NexGen Hit With Shareholders Suit

Chip maker NexGen Inc. says a suit has been filed against it and its directors by two shareholders. The complaint alleges that NexGen's directors breached their fiduciary duties to shareholders in approving a merger with Advanced Micro Devices. The two shareholders purport to represent a class of all NexGen shareholders. The complaint seeks to prevent the consummation of the merger or damages in an unstated amount.

NexGen says the complaint is without merit and that it intends vigorously to defend itself against the claims. "The board of directors approved the transaction with AMD and believes it is in the best interest of NexGen's shareholders," notes a statement issued by NexGen. NexGen, headquartered in Milpitas, California, develops and markets x86-class PC microprocessors.

Dell, FTC Reach Settlement

Dell Computer Corp. has agreed to drop patent claims affecting millions of PCs using the industry standard VL-bus, says the Federal Trade Commission. The Reuter news service notes that the agency alleged that Dell had restricted competition in the PC industry and undermined the standard-setting process by threatening to exercise undisclosed patent rights against computer companies adopting the VL-bus standard.

To settle the FTC charges, Dell has agreed not to enforce its patent rights against computer manufacturers using the VL-bus, a mechanism to transfer instructions between the computer's central processing unit and its peripherals. In agreeing to the consent decree, Dell did not admit to any wrongdoing, nor did the FTC find that Dell had violated any law or regulation. In addition, the agency did not impose any fines or sanctions against the computer maker.

Reuter notes Dell was a member of the Video Electronics Standards Association (VESA), a non-profit standards-setting organization, when the association began setting a design standard for a computer bus design to respond to the demand for faster graphics performance. VESA members voted to approve the new VL-bus standard in 1992. As part of that approval, a Dell representative allegedly certified that he knew of no patent, trademark or copyright that the bus design would violate.

After the VESA VL-bus design standard became successful and computer makers sold more than 1.4 million PC using the VL-bus, Dell contacted some VESA members and asserted that it obtained a patent in 1991 that they were violating by using the VL-bus standard, the FTC says. FTC says this is the first time U.S. law enforcement authorities have taken action against a company for acting through a standard-setting association to unilaterally seek to impose costs on its rivals through abuse of the standard-setting process.

CompuServe Settles Music Suit

CompuServe officials say the firm has agreed to pay \$568,000 to settle a pending class action suit alleging copyright infringement through music files downloaded by subscribers of the online service. The plaintiff, Frank Music Corp., originally sought \$17 million. The Reuter News Service says the settlement cost is covered by CompuServe's insurance.

Reuters notes the U.S. District Court suit, filed in November 1993, "alleged the copyrights in the song 'Unchained Melody' and more than 900 additional songs owned by other music publisher-principals of HFA were infringed. ... The claims were based upon the copying of songs in the uploading and downloading of sound recordings to and from CompuServe's databases."

The settlement agreement now will be submitted for court approval to U.S. District Judge John Keenan. As part of the overall settlement, CompuServe, which did not admit liability, will make a payment to Harry Fox Agency Inc., a mechanical rights licensing agency for music publishers. The payment will be divided among the music publishers whose songs were involved in the case. "CompuServe said it will work with HFA to make it possible for the managers of a number of interest areas and forums on CIS to take licenses from HFA that permit the future uploading and downloading of recordings of the publishers' songs," Reuters adds.

Toshiba Has Speedy CD-ROM Drives

Toshiba America Information Systems Inc.'s disk products division has launched the XM-3701 series of 6.7-speed CD-ROM drives. The drives support a 1,000K per second data transfer rate and a 120ms random seek time. Jerry Higgins, a Toshiba vice president, notes that the drives offer "the performance necessary to support smooth full-motion video and complex high-end graphics transfers from CD-ROMs."

According to Toshiba, the 6.7-speed rotation is achieved through the use

of enhanced error correction and a digital signal processor, as well as an improved optical pick-up head and spindle motor. The drives also support one-speed and two-speed rotations.

The XM-3701 drives employ the same variable speed playback system used in other Toshiba CD-ROM drives. The system allows the drive to read data before the disk reaches a specific rotational speed, allowing enhanced read times. Toshiba says the variable speed playback also decreases power consumption to an average 5.9 watts. The XM-3701 drives are compatible with all major CD-ROM formats. The drives are available in internal and external models, priced at \$415 and \$515, respectively.

Toshiba Offers Faster CD-ROM

Toshiba America Information Systems Inc. has unveiled the XM-3701 series of 6.7-speed CD-ROM disc drives. In a statement from its disc products division in Irvine, California, Toshiba says the drives support a 1,000-kilobytes/second data transfer rate, and use the variable speed playback system used in previous Toshiba CD-ROM drives. The internal drive has a suggested list price of \$415, which the external units list for \$515.

McAfee Promises Net Virus Guard

With a new product called WebScan, McAfee Associates Inc. says it has come up with a way to protect Net surfers from downloading viruses on the Internet's World Wide Web. McAfee officials told reporter Joan E. Rigdon of the Wall Street Journal that the WebScan software screens programs before they're downloaded and if it finds a virus, it warns the user not to continue.

Scheduled to ship by early next month, WebScan comes bundled with an email program and a Web browser made by Spyglass Inc., but will work with any other browser software, McAfee officials say. Rigdon quotes security experts as saying WebScan is the first software that prevents viruses from electronically entering a computer by identifying the bug before the download actually takes place.

"Current antivirus software simply identifies a virus after it has arrived, giving it an opportunity to do damage," the Journal adds. "The introduction of WebScan points up some, little-known security holes in personal computers hooked to the Internet. Most people assume that antivirus software will alert them to viruses they download from the Internet. It will -- but only when a user scans for viruses, which most people do only once a day, when they turn on the computer. Even then, the software simply identifies the virus."

Rigdon notes that existing antivirus software can be set so it checks for viruses any time a computer is ordered to do anything, but most people don't use this setting because it takes up too much memory and slows down the computer's performance. "Also," she notes, "most people correctly think they can avoid getting viruses by not downloading anything from the Internet. But a new technology called 'server push' can lead people to unwittingly download programs simply by looking at a site on the Internet's graphical World Wide Web. ... Server push automatically sends tiny programs to a user's personal computer that allow the user to see fancier special effects." McAfee CEO Bill Larson told the wire service that so far, no one has figured out how to plant a virus in a server-push program, but that WebScan would halt such a virus should it become a reality.

Fastest Mac Clone Introduced

The new Power Computing Corp. has introduced what executives there say is the world's fastest Apple Macintosh clone computer. From the firm's Palo Alto, California, headquarters, Susan Moran of the Reuter News Service notes that the new machines by Power Computing, the first company to begin making Mac clones, are built around a 150MHz PowerPC chip. Currently, the fastest PowerPCs operate at 132MHz. As reported, the PowerPC family of chips was co-

developed by Apple, IBM and Motorola Inc.

HP Offers Major New Scanner

A new scanner that may hasten the decline of the office copier has been unveiled by Hewlett-Packard Co. The HP ScanJet 4Si scanner hooks into a computer network to scan 15 pages of documents a minute into a fleet of PCs. Writing in the Wall Street Journal this morning, reporter Jim Carlton comments, "The product is considered a breakthrough because it is the first desktop scanner that operates from a network rather than a single computer. It's also far faster than current desktop scanners, which transform paper documents into electronic ones at the rate of about five pages a minute."

The Journal notes that other scanners, just as fast and versatile, cost as much as \$100,000 and are used largely in specialized tasks within engineering and electronic publishing. By contrast, HP's model is priced at about \$3,000 and will be aimed at the general corporate market. HP General Manager Carolyn Ticknor told Carlton, "It's going to make people like you and me either work with paper or electronic data. You get to make the call."

Carlton says the unit "probably won't lead to the elusive paperless office, because office workers still make voluminous printouts of data retrieved through their PCs," however "it translates into more bad news for the world's \$27 billion copier market, besieged over the past decade as the laser printer made possible the same high-quality reproductions from a PC as from a stand-alone copier."

Novell to Sell WordPerfect

Just 16 months after buying out the word processing giant for \$855 million in a bid to wrest a bigger share of that market from Microsoft Corp., Novell Inc. now says it will sell most of WordPerfect Corp. along with other parts of its office applications software business.

Analysts say this is a major change in Novell's marketing plan, turning away from what has been deemed its losing strategy in the word processing and spreadsheet businesses. Reporting from Novell's Provo, Utah, offices, Associated Press writer Kristen Moulton says Novell now plans to concentrate on its industry-leading products for networking PCs instead of those from its acquisition of WordPerfect and the \$145 million asset purchased from Borland International Inc.

AP says other software companies are negotiating to buy the WordPerfect software, QuattroPro spreadsheet and other business applications. "Novell declined to identify the companies," Moulton says, "but analysts speculated a leading candidate was Oracle Corp., which specializes in sophisticated databases for large computer systems. If a prominent buyer does not emerge, the market for office PC programs may shrink to just Microsoft Corp. and IBM's Lotus Development Corp." AP says the businesses to be sold represented \$86.1 million of Novell's \$538 million in third-quarter revenue.

Novell Chairman/CEO Robert Frankenberg said on a videotape played during a news conference late yesterday his company made the decision "not because it's a business without a future, but because for Novell it represents a distraction from our strategy." Frankenberg said Novell will retain a WordPerfect product called GroupWise, a fast-growing electronic mail and database program that competes with Lotus' Notes.

AP notes the decision represents defeat for a strategy Novell founder Ray Noorda initiated before retiring last year. "unfortunately," Moulton commented, "it came at a time when Microsoft's sales were racing as the company led the way in bundling office programs in so-called 'suites.' Such products now account for just over half of all business productivity program sales. Analysts estimate Microsoft's Office product represents 85 to 90 percent of suite sales, compared to about 5 to 9 percent for Novell's Perfect Office and 4 to 6 percent for Lotus' SmartSuite."

MCI Communications Corp. and Intel Corp. today announced they will work together on desktop video and audio conferencing, bringing together MCI's network MCI and Intel's ProShare technology conferencing services, reports Reuters. The industry standard T.120 application sharing technology for documents and still images will be used. "We believe we can offer customers greater convenience and value by integrating Intel's ProShare technology with MCI's network MCI," said Scott Ross, president of financial and business operations at MCI's telecommunications unit.

Reuters notes that ProShare brings video conferencing out of special rooms and to the desktop personal computer. In a separate announcement, MCI said it was introducing a conferencing system that would allow more than two users to share documents over ordinary phone lines. MCI will use a server provided by VideoServer Inc., which supports the T.120 technology, as well as existing analog telephones and PCs. Users will be given a choice of software providers. Commercial availability is expected in December.

Businesses Embrace the Internet

A new survey finds that the Internet is weaving its way into the heart of U.S. businesses. Market research firm Dataquest reports that nearly 60 percent of IS managers in medium-size to large organizations respondents indicated that all departments within their companies have access to the Internet. Over 50 percent of those users have access to the World Wide Web. More than 70 percent of the respondents revealed that they find the Internet a useful tool to have at workers' desktops, and more than 80 percent indicated that it is a reliable source of information. More than 60 percent of the IS managers surveyed indicated that the Internet is a key part of their overall information technology strategy, citing greater access to business information as a key reason.

"In less than a year we have seen the World Wide Web move from a depository for company billboards to a legitimate business tool that can increase worker productivity," says Dataquest analyst Rick Spence. "Traditional information providers from newspaper and magazine publishers to NEWSWire and market research providers are rethinking their business models as they move to Internet distribution and sale of their products and services." The IS managers were also surveyed on their own use of the Internet to obtain service and support from technology suppliers. More than 70 percent download patches and bug fixes and more than 60 percent obtain new software products and answers to technical questions via the Internet.

When asked what percentage of service and support inquiries they believed would be resolved via the Internet in 1997, more than half of the respondents believe that less than 40 percent of their questions will be answered through interaction with the Web.

Clinton's E-mail Praises Schools

Students at two Silicon Valley schools received e-mail from President Clinton yesterday congratulating them on hooking up to the Internet as part of a new statewide drive toward computer literacy. Clinton's message says, "The connections made on this occasion will allow you to travel as fast and as far as your imagination will take you." United Press International quotes organizers from Sun Microsystems as saying the Internet projects at Arundel Elementary School in San Carlos and Piedmont Hills High School in San Jose will serve as prototypes for all schools in California.

In conjunction with a few other Silicon Valley companies, Sun Microsystems has launched a campaign to recruit volunteers in every California community to hook up their local schools to the Internet. The project is called Netday '96 and the firm wants all the state's schools to be hooked up simultaneously on next March 9. Sun executive Scott McNealy told the wire service, "The Internet is an invaluable teaching tool that aids the educators and students and expands learning outside of the classroom," adding the goal is not just to teach students how to use computers, but to enable

teachers to use computers and the Internet as a teaching tool.

For example, McNealy says, students can communicate with students in other parts of the nation or the world; visit a museum by taking a virtual tour; and learn and practice foreign languages among other things. UPI says more than 50 Sun employees volunteered at the Arundel and Piedmont schools for this project and that Sun plans to publish a how-to manual on the Internet's World Wide Web so other companies and volunteers can undertake similar projects in their communities.

The president praised computer companies for their efforts and urged other private firms to forge partnerships with schools to make the Internet available to all students, adding, "We must all work together. Grassroots initiatives like this will help children to take full advantage of the information revolution."

The Kids' Computing Corner

Microsoft EasyBall
serial interface input device
for children ages 2 to 6
suggested retail \$54.95

by Frank Sereno

Most of today's computer programs have interfaces which require moving a cursor about the screen to click on icons to start activities. For young children, manipulating a mouse requires fine motor skills and much dexterity which they may have not yet developed. This can make computer time into a frustrating and unpleasant experience instead of fun and educational. Microsoft has developed a new input device which will make computing easier and more fun, the EasyBall.

The EasyBall is a large yellow trackball with a single, large blue button below it on the wide, flanged base. The bottom has rubber pads which prevent the unit from sliding across a desk or table. The EasyBall is large but it isn't heavy. It was designed to be used in a child's lap or on the desktop. The trackball is a smooth plastic which can be easily cleaned. The base can be disassembled by removing a few screws from the bottom to clean the rollers.

Microsoft spent much time developing and testing this product. It only has one button because most children's programs use only the left mouse button. The button has tactile feedback so children know when they have activated it. Children can use either hand to move the trackball or press the button. The button can even be activated by the palm of the hand or an elbow. The wide flanges on the base allow the child to hold the unit easily. Because gross motor skills are used to operate the EasyBall, it can easily be used by people with arthritis or carpal tunnel syndrome.

The EasyBall has a nine-pin serial plug but it can be used with a 25-pin adapter. Microsoft sells an optional adapter which allows two input devices to be hooked to the same serial port. The cost is \$14.95 and an order coupon is included with the EasyBall. The adapter allows young children and parents to use their own input devices for their sessions with the computer without the hassle of changing plugs or driver software.

Microsoft is currently offering the EasyBall in a "value package" which includes Explorapedia The World of Nature and EasyBall Pointerland. The evaluation unit sent to me did not include this software so I will relate the information included with the press notes. Explorapedia is a multimedia nature hike. Colorful images, animation and video, sounds, music, informative text and interactive games take children on a journey through nature. Prereaders can enjoy the title because the text is narrated.

Pointerland allows children to choose from several cursors including an airplane, star and baby chick. A barnyard scene teaches children how to use the EasyBall by asking the children to find hidden objects and hot spots by moving the cursor and clicking.

The EasyBall is supported by Windows 95 and it operated well with a regular mouse driver too. This is a sturdy and well-constructed device which should stand up to years of use. The EasyBall is backed by a thirty-day moneyback guarantee. The suggested retail price is \$54.95 but it is available at discounters for around \$45. That's equal to the price of a good serial mouse and it includes a \$30 educational program too. If you are looking for an input device for a young child, the EasyBall is an excellent choice.

FOR IMMEDIATE RELEASE

Edmark Announces Destination: Ocean
The Newest Addition to the
Award-Winning Imagination Express Series

Redmond, WA - Edmark Corporation, a leading developer of educational software for children, announces Destination: Ocean the newest addition to the award-winning Imagination Express series featuring- new Movie-Making technology that allows kids to create their own interactive movies as well as stories. Destination: Ocean enables kids ages 6 to 12 to become writers, animators, sound producers, art directors and publishers while they develop critical communication skills. Destination: Ocean joins Destination: Rain Forest, Destination: Castle and Destination: Neighborhood as the fourth member of this award-winning series. Destination: Ocean is shipping now on CD-ROM for both Windows and Macintosh computers.

Destination: Ocean is a rich marine learning environment and powerful multimedia story and movie-making tool for kids - based on the underwater world of the Channel Islands off the coast of Santa Barbara, California. The beautifully hand-painted ocean background scenes, animations, music, sound effects and exciting sea-life stickers provide kids with all the tools they need to create interactive stories and movies. Using the new Movie-Making technology in this program, kids record and play back the path of any sticker, adding an exciting new dimension to their storytelling. For example, they can make sharks swim through sea kelp while dolphins leap above the waves. All of the stickers in Destination: Ocean auto-size, shrinking as kids move them to the background and enlarging as kids move them to the foreground. "Zoom" background scenes provide close-up views of tiny plants and animals. The Ocean Fact Book provides an additional learning opportunity for kids; they can look up fascinating facts about marine life, ocean preservation, navigation and exploration to weave into their tales.

"Imagination Express is a powerful tool that frees children and lets their creativity soar," said Sally Narodick, Edmark CEO. "With Destination: Ocean kids will learn interesting information about how the ocean functions, marine life, natural history and about how to use sound, motion, graphics and words to bring a story to life. Amazing pride, joy and learning comes to children when they role-play, direct and produce interactive stories and movies with Imagination Express."

New Technology Inspires Creativity

Destination: Ocean brings powerful new technology to the Imagination Express series. Kids can use the Movie-Making tool to make movies as well as interactive stories. In addition, moveable text areas now enable kids to place text anywhere in their scenes, with or without decorative borders. Both of these powerful new features are automatically added to all the other Imagination Express destinations when Destination: Ocean is installed.

Movie-Making

Kids can create "movies" by clicking on a sticker and dragging it to record its motion. Kids can select theme music for their movies, record their own narratives or sound effects and turn on sticker animations in every scene. When kids play their movies, eels slither through kelp while electric rays skim across the ocean floor to the sound of the waves above.

Text Tools

Kids can add text to every scene and choose a font, color and size. They can then drag the moveable text areas anywhere they want in the scene, with or without a decorative border background.

"Genius" Stickers

Genius stickers animate as kids drag them through the scenery. For example, as a dolphin swims underwater his tail flips up and down.

Additional Special Features

Auto-Sizing

Stickers grow when kids move them to the front of a scene and they shrink when moved into the background. Kids create scenes with real-life perspective.

"Smart" Stickers

All stickers go where kids drag them - through the kelp forest or inside the underwater cave - making every scene feel three-dimensional.

Sticker Tools

The Sticker Picker contains hundreds of stickers arranged by categories like Fish, Divers and Birds. Kids can drag and drop stickers from the Sticker Picker into each scene. The Sticker Editor allows kids to change each sticker's size, rotate stickers, turn animations on and off with the click of a button and attach sound effects to each sticker.

Sound Tools

With the sound tools kids can record narrations in which their characters sing, laugh, speak or squeal, and they can choose theme music to accompany each page.

Story Ideas

Story Ideas are creatively presented by kids for kids. They encourage kids to use their own imaginations, by offering ideas for stories, i.e., "Pretend that you're a seal, and tell a story about the people you see on a fishing boat," and they suggest different ways to write.

Useful Tools for the Whole Family

View Mode

In View Mode children can see and hear each page of their story or movie unfold on-screen.

Dear Parents Section

In this section, Edmark's Donna Stanger, award-winning software designer and teacher for 20 years shares her ideas on "The Writing Process" to help and encourage parents to become active participants in their children's learning.

The Ocean Fact Book

This talking book provides kids with fascinating facts about the ocean environment and inhabitants, ocean preservation, navigation and exploration. It is a rich source of information kids can weave into their stories.

The Ocean Resource List

This list provides kids with the names of organizations they can contact by phone, mail or online to receive responses to specific questions about oceans, and to learn more about the environmental concerns that face our oceans. A few of the organizations include EarthForce, SeaWorld Education Department and the Marine Science Society.

Adult Options

Adults can use a three-key combination to enter the Adult Options section, where they can customize the program for every child. Adults can specify whether kids can edit stickers, add text to pages, and select or record sounds for their pages.

Educational Benefits

Destination: Ocean provides a wide variety of opportunities for theme-focused learning.

Children can:

- '• Strengthen communication skills.
- '• Design beautiful scenes, discover new writing techniques, and exercise their creativity.
- '• Create fictional and non-fictional stories about life in the ocean.
- '• Learn about marine life and the natural history of California's Channel Islands.
- '• Discover how the ocean functions and learn how to protect it.

Recognized by Experts

The Imagination Express series has been honored with several prestigious industry awards; a few of the highlights include:

- '• 1995 Technology & Learning Award of Excellence in both the Home and School Categories
- '• 1995 Newsweek Editors' Choice Award
- '• 1995 National Parenting Center Seal of Approval

Product Availability and Pricing

Imagination Express Destination: Ocean will be available after October 30, at major software retailers and through software catalogs for approximately \$35. School Versions of the product will be available at a later date. For more information, customers may call Edmark's Customer Service department at (206) 556-8484.

System Requirements

Macintosh: Color Macintosh (256 colors required); 8 MB RAM; CD-ROM drive (double-speed or faster recommended); System 7 or higher; 13" or larger monitor; Hard disk with 4 MB free. Recommended: Microphone; printer.

Windows: Windows 3.1 (enhanced mode) or later; 8 MB RAM; CD-ROM drive (double-speed or faster recommended); 25 MHz 386 or better; 256 color SuperVGA; Hard disk with 4 MB free; Mouse; Sound-output device. Recommended: Microphone; printer.

Edmark Corporation, located in Redmond, Washington, is a leading developer and publisher of educational software and materials, with 25 years of experience applying proven educational concepts to the development of educational products for children. The company develops products for both the consumer and education markets, including its award-winning line of software for Windows and Macintosh platforms: KidDesk Family Edition, Millie's Math House, Bailey's Book House, Sammy's Science House, Trudy's Time and Place House, Thinkin' Things Collection 1, Thinkin' Things Collection 2, Thinkin' Things Collection 3 and Imagination Express.

Final Ramblings

Most all computer experts preach the importance of tape backups. I mentioned this in my article last week and the publisher/editor of this magazine has written articles about this topic in the last two issues as well. It had been a while since I had backed up my system. Here's what happened to me over the weekend...

Since I have Windows 95, I could not use my old, reliable backup program. That shouldn't be a problem since Win95 includes a backup program. But it doesn't support the Travan media that I prefer to use in my tape drive. So I start to back it up using some 2120XL tapes. Win95 Backup runs right along until the last tape and starts getting media errors. Meanwhile, I find a magazine article which gives information about free upgrade software for Win95 for my tape drive. So I download the software and back the system up again on a new Travan media cartridge. A FULL backup including the all important Registry file for Win95. The program appears to run flawlessly and

generates no errors after comparing all files.

I decided to repartition my hard drive and then use my tape to restore all the files. It shouldn't be too hard since I have a "perfect" backup tape. The first small problem is that the restore program will run only under Win95. So now I get to do the thirteen disk floppy shuffle reinstalling Win95. That's forty-five minutes down the tubes. Then I reinstall the tape software. Finally I get to restore my tape. All seems to be going well until the tape gets to the Registry file. BURP! The program tells me to restore the Windows directory again but then I get a ton errors because certain files are in use by the operating system. I figure they were okay the first time around so I quit the tape program and start using my system.

Some more problems...Norton Utilities is missing files. So I reinstall that program. My desktop wallpaper and sound files weren't restored. They were on the drive, but Win95 no longer used them. I'm not sure how many little files may be missing. The biggest problem with Windows in general, and Win95 in particular, is that it has hundreds of tiny files that seem to have no importance until you run an application which needs them.

I'm hoping that somebody comes out with a program that will restore a tape backup without having to reload Win95 first. And I'm hoping that it works a lot better than my current software. Maybe I need to buy a SCSI unit instead of the affordable tape drives which run off the floppy controller. Here's hoping that somebody gets it right.

Your comments and suggestions are welcome. If you have any questions, I will gladly try to provide answers. Send e-mail to fsereno@matrix.uti.com. As always, I thank you for reading!

Matrox Millenia STR InfoFile

Matrox sets record straight!

Matrox's Response
to errors in
PC Magazine article

The recent PC Magazine First Look of the MGA Millennium (MGA Millennium Speeds Up Graphics with WRAM, PC Magazine, October 10, 1995) was a gross misrepresentation of the product's capabilities and presented a false and unfair comparison of the board's speed vs. a competitor's.

Technical Errors

Apart from printing the wrong price for the 4MB version of the board (SRP \$549), PC Magazine made the false statement that "3D acceleration is only supported at 640 x 480 resolution with 16.7 million colors, and at 800 x 600 with 65,536 colors." The MGA Millennium, with 4MB of WRAM, is also capable of supporting 3D Gouraud-shaded, double-buffered and z-buffered resolutions of up to 1152 x 882 in 256 colors. In addition, the MGA Millennium supports 3D wireframe resolutions as high as 1600 x 1200 x 16-bit.

Incorrect Performance Comparison

The most serious mistake made by PC Magazine in this article is the benchmark comparisons against the Diamond Stealth 64 Video VRAM accelerator. The article states that "...[the MGA Millennium's] Winstone score [is] of 106.0 in 1024 x 768 resolution with 16.7 million colors on the same Pentium/90 test-bed that was used for our June 27, 1995 graphics round up (...) this score was bested only by the Diamond Stealth 64 Video VRAM card." This statement is false, PC Magazine has admitted that the system used to test the MGA Millennium in the First Look was not exactly the same as the one used for the graphics round-up.

In addition, the Stealth was tested in "small fonts" mode in the round-up,

while the MGA Millennium was tested in "large fonts" mode for the First Look. These two errors in testing methodology constitute gross negligence on the part of PC Magazine. They caused the false conclusion that the Diamond Stealth is faster than the Matrox Millennium. After Matrox demanded that the tests be redone correctly, PC Magazine found the following scores:

Font Size	Issue 12 test system		First look test system	
	Diamond	Matrox	Diamond	Matrox
large	Not tested	110	99	106*
small	107*	113	104	109

* Numbers in italics shows scores that were used to make the erroneous speed comparison in the First Look article.

Based on these results, PC Magazine has now admitted that the MGA Millennium is consistently and significantly faster than the Diamond Stealth 64 Video VRAM, and that PC Magazine's article is false and unfair.

Devbits

In addition, PC Magazine improperly reports that "Devbits" has no performance benefit on real world applications. The use of Device Bitmaps or bitmap caching in a graphics driver improves graphics performance in the same way the system cache helps system performance. Just as no system today should ship without a cache, no graphics card should ship without some form of device bitmap caching enabled. In fact, Device Bitmaps are a technology endorsed by Microsoft and utilized in the drivers of many other graphic vendors tested by PC Magazine - including the Diamond Stealth 64 Video card used in the comparison. In contrast to what was reported, device bitmap caching has a large impact on application based tests. In fact, using WinStone 95, the Millennium achieves a 7% boost in scores by efficiently implementing Device Bitmaps.

Conclusion

This is the second time in a row that PC Magazine has committed gross errors in testing methodology and analysis. PC Magazine printed a major retraction of its June Issue 12 graphics card roundup in the September 12th issue. They will print another retraction of the October article. These repeated errors have caused Matrox to conclude that any future article from PC Magazine comparing graphics accelerators should be examined carefully for accuracy.

Micrographics Updates STR Infofile

Micrografx Steps Up Channel Activity in the Education Market The Douglas Stewart Company Signs on as Micrografx's Newest Distributor

Richardson, Texas (November 6, 1995) - Micrografx (R), Inc. (NASDAQ: MGXI), a leading graphics software developer, and The Douglas Stewart Company, the premier value-add distributor of computer software for the education market, today announced an agreement that significantly expands the number of Micrografx products available to the K-12 and higher education markets. The agreement enables The Douglas Stewart Company to distribute Micrografx's award-winning graphics software via its extensive channel of college bookstores and educational resellers which will greatly increase Micrografx's presence in the growing education software market.

"The Douglas Stewart Company offers an opportunity for Micrografx to broaden its reach in the education market with the most complete graphics product

line available," said Brad Lundberg, director of channel sales and marketing for Micrografx. "We anticipate long-term success selling into the education market based on the suitability of Micrografx products for both students and faculty. From elementary to graduate schools, Micrografx applications enable customers to expand their creativity, and enhance assignments, reports and classroom presentations."

Bringing Graphics Applications to the Classroom

Under the agreement, The Douglas Stewart Company will make it easy for students and faculty to purchase Micrografx's value-packed graphics software, including ABC Graphic Suite (TM) for Windows(R) 95, Crayola(TM) Art Studio(TM) 2, Hallmark Connections(TM) Card Studio(TM) and Windows Draw(R) 4.0.

ABC Graphics Suite combines Micrografx's award-winning ABC FlowCharter(R) 4.0, Micrografx Designer(TM), Picture Publisher(R), ABC Media Manager(TM), and Instant 3D(TM) into a tightly integrated 32-bit graphics package. With ABC Graphics Suite, students and faculty can bring term papers and reports to life by adding diagrams, flowcharts, clipart, illustrations, photo-images, drawings and 3D images.

For educational customers using 16-bit computers running Windows 3.x, The Douglas Stewart Company will offer Micrografx's Designer Power Pack and ABC FlowCharter 4.0, the essential tools needed to graphically enhance any curriculum content and course assignments. The Designer PowerPack combines technical illustration, image editing and powerful graphic effects tools, while ABC FlowCharter allows users to create simple to complex diagrams within a straightforward point-and-click interface.

"Initial response among the retail outlets we've targeted is very positive," said Jack Bahlman, division manager of The Douglas Stewart Company. "Retailers recognize the outstanding quality and value of Micrografx products and their appeal to both students and faculty looking for tools to help them get ahead."

Brand Name Creative Products and Volume Pricing for K-12

Educational Resources, one of The Douglas Stewart Company's largest educational resellers, will target the K-12 market with a new volume licensing program that offers economical pricing and easy software administration for both large and small educational institutions. Through Educational Resources, schools can purchase volume license and shrink-wrap versions of ABC Graphics Suite, Crayola Art Studio 2, Hallmark Connections Card Studio and Windows Draw 4.0.

Among the software titles from Micrografx, Crayola Art Studio 2, Hallmark Connections Card Studio, and Windows Draw 4.0 are ideal for K-12 educational institutions. Crayola Art Studio 2 is a multimedia CD-ROM with two age-appropriate play areas. Educational and developmental benefits are woven into games and activities to promote letter recognition, spelling, pre-math, observation, evaluation and comparison skills. The two play areas for kids three-to-six and six-to-12 years of age are equipped with draw, color and paint tools that help children explore creativity. Crayola Art Studio 2 offers a Macintosh, Windows 3.1 and Windows 95 version on one CD-ROM. Now, whether a school is using Windows-based or Macintosh personal computers, it can purchase one software package to extend Crayola creativity to the computer.

Hallmark Connections Card Studio offers students and faculty an easy and

enjoyable way to create high-quality, uniquely personal greeting cards, announcements, invitations, signs and certificates. And for educational institutions looking for a fast, fun, and friendly drawing program, Windows Draw 4.0 represents a strong value. Windows Draw 4.0 includes drawing, diagramming, photo editing, painting, and a clipart manager, plus more than 15,000 clipart and photo images and 250 fonts.

An Introductory Offer

To promote the entire Micrografx product line in the education market, The Douglas Stewart Company is planning several in-store promotions, direct mail campaigns, and discount programs for 16-bit applications through qualified resellers. To assist buyers with locating Micrografx products at educational resellers throughout the country, customers can visit The Douglas Stewart Company's recently unveiled World Wide Web site, <http://campusmall.com>.

The Douglas Stewart Company is a national distributor and marketer of computer software and hardware, electronics and school supplies for educational resellers serving the K- 12 and college markets. Headquartered in Madison, Wisconsin, the company provides marketing and distribution services to major manufacturers and educational resellers across the U.S. and Canada.

Micrografx develops and markets graphics software to meet the creative needs of everyone who uses a personal computer. Founded in 1982, Micrografx has become a leading software publisher by responding quickly to customer and worldwide market needs. The company's U.S. operations are based in Richardson, Texas, with a development office located in San Francisco. International subsidiaries are located in Canada, the United Kingdom, France, Germany, Italy, the Netherlands, Australia, and Japan.

Additional information on Micrografx is available on the Internet at <http://www.micrografx.com>.

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Crayola Art Studio is a trademark of Binney & Smith Properties, Inc.

Hallmark Connections and Card Studio are trademarks of Hallmark Licensing, Inc.

Pagemaker 6.0 Win95 STR Focus

Adobe Systems Ships PageMaker 6.0 for Windows 95

Major Upgrade Adds Features for Professional Publishing and On-line Delivery Mountain View, Calif. (November 6, 1995) (Nasdaq:ADBE)-Adobe Systems Incorporated today announced the availability of Adobe PageMaker 6.0 for Microsoft Windows 95, a major upgrade to the world's leading professional page composition software. In addition to offering more than 50 new features, Adobe PageMaker 6.0 is the first professional page layout program designed specifically for Windows 95, upholding Adobe Systems' commitment to deliver a Windows 95 logo compliant version of PageMaker within 90 days of the release

of the new operating system. Adobe PageMaker 6.0 for Windows 95 is available immediately from Adobe Authorized Resellers at a suggested retail price of \$895.

New Professional Publishing Features

Adobe PageMaker 6.0 software offers a wide range of new color publishing features including support for the Kodak Precision Color Management System and high-fidelity color as well as complete Photo CD support. Page layout enhancements include multiple master pages, grouping and ungrouping, position locking and unlocking of objects, object masking and a new table application. Integrated automatic trapping, reader's spreads and a print fit view are among the new printing and prepress features.

On-line Publishing Capabilities

PageMaker 6.0's new Create Adobe PDF feature allows users to save publications in the Adobe Portable Document Format (PDF) which can be viewed, shared and printed across Windows, Macintosh, DOS and UNIX platforms. In addition, PageMaker 6.0 can convert publications into Hypertext Markup Language (HTML) format for distribution on the World Wide Web.

The new PageMaker program also emphasizes integration with other Adobe products. PageMaker 6.0 features hot links to Adobe Photoshop and Adobe Illustrator, and users can run Photoshop special effects plug-ins directly within PageMaker. PageMaker 6.0 for Windows 95 also comes with a Deluxe CD-ROM that contains free software including the Adobe Acrobat Distiller Personal Edition, the Acrobat Reader and Photoshop LE for Windows. In addition, users can unlock 220 free typefaces on the Adobe Type On Call 4.0 CD included with PageMaker 6.0.

"For professional page composition in Windows 95, nothing comes close to Adobe PageMaker 6.0. Its performance is awesome--like working in real time--and the color processing is excellent," said Lee Wojnar, founder of Philadelphia-based Wojnar Photography, Inc. "The biggest benefit of all is that PageMaker 6.0 works so well with Adobe's other applications, providing all the tools for digital publishing."

New Windows 95 Features

A true 32-bit application, Adobe PageMaker 6.0 for Windows 95 boosts performance in key areas such as the Graphics Device Interface, which accelerates printing, drawing operations and rasterization of fonts. In addition, 32-bit I/O and device drivers enhance performance in networking and file transfer, which benefits PageMaker users who share large files in workgroup settings. PageMaker 6.0 for Windows 95 also takes advantage of the new Windows 95 user interface enhancements, such as common dialog boxes. An OLE 2.0 client, PageMaker 6.0 allows users to drag objects directly into the PageMaker program from OLE 2.0 server applications such as Microsoft Word and Excel.

As a Windows 95 logo-compliant release, PageMaker 6.0 also meets Microsoft's requirements for use of long filenames, support for universal naming conventions pathnames, simple mail enable (MAPI) capabilities and Windows NT compatibility. To ensure compatibility for users of Windows 3.1, PageMaker 6.0 includes Win 32s dynamic linking libraries, which enable users of 16-bit Windows to use version 6.0.

Price and Availability

Adobe PageMaker 6.0 for Windows 95 is available at Adobe Authorized Resellers for a suggested retail price of \$895 U.S.). Registered users of any version of PageMaker for Windows can upgrade to version 6.0 for \$149. Customers who purchased retail copies of PageMaker 5.0 after June 17, 1995 in the United States and Canada are eligible to receive a free upgrade to version 6.0. For more information, customers in the United States and Canada may call Adobe at 1-800-42-ADOBE (800-422-3623). Localized language versions and support and upgrade policies for other countries will be forthcoming.

System Requirements

Windows 95 System Requirements: An Intel486 processor, 8 MB of RAM, Microsoft Windows 95, default virtual memory settings, 24 MB of free hard drive space

for installation (plus extra space for virtual memory), a VGA display card, high-density disk drive and a mouse or other pointing device. Windows 3.1 System Requirements: An Intel486 processor, 10 MB of RAM, Microsoft Windows 3.1 running in enhanced mode, DOS 5.0 or later, default virtual memory settings, 24 MB of free hard drive space for installation (plus extra space for virtual memory), a VGA display card, high-density disk drive and a mouse or other pointing device.

Adobe Systems Incorporated, founded in 1982, is headquartered in Mountain View, California. Adobe develops, markets and supports computer software products and technologies that enable users to create, display, print and communicate electronic documents. The company licenses its technology to major computer, printing and publishing suppliers and markets a line of applications software and type products for authoring visually rich documents. Additionally, the company markets a line of powerful, easy to use products for home and small business users. Adobe has subsidiaries in Europe and the Pacific Rim serving a worldwide network of dealers and distributors. Adobe's 1994 revenue was approximately \$598 million.

TECH... No Babble

STReport Makes Technology Easy!

Pretty Good Privacy

by Joe Mirando

73637.2262@compuserve.com

Welcome back to all you technophiles, technophobes, technojunkies, and technowannabes.

Before we start with this installment of TECH... No Babble, I'd like to thank the few people who took the time to drop me a line or two to let me know what kinds of things interest (or frighten) them. I know that there are lots of folks that simply won't write to me either because they are afraid to let on that they don't know about a particular subject, or because they don't have the time to sit down and write a long explanation about what they'd like to see in this column.

Not to worry folks. I decided to make this installment about PGP after I got a note that said simply "What is this PGP I keep hearing people talk about?" Ten little words. That's all it took. Because this person, whom I have never met or corresponded with before, dropped me a line, we're all going to learn a little bit about it and about Public-Key encryption in general.

So let me know what interests you about today's technology, what frightens you about it, or whatever it is that you saw recently that you thought was "cool". Okay, let the TECH... No Babble begin!

At a glance, PGP (Pretty Good Privacy) by Philip Zimmerman is a military grade encryption program available for DOS, Unix, Atari 680xx, Amiga, Apple Macintosh, and VAX. Remember those little "secret code" wheels you used to get in boxes of cereal or by sending in a bunch of product wrappers to the manufacturer? They had all the letters of the alphabet and a corresponding number next to it. By turning the two parts of the wheel, you could change the numbers that corresponded to the letters. You could then "code" a secret message and give it to you best friend along with the number that told your pal where to set the two halves of the wheel and he could then decode the message. This is cryptography.

As always, the best place to begin is at the beginning. Cryptography has been used, in one form or another, since man decided that he needed to hide information from some and make it accessible to others. Since this column is about modern data encryption, we'll skip over the ancient and medieval things that people did to encrypt or encypher data and start off

with World War II. The United States used several methods of encryption, most of which involved using code names and phrases to obscure the meaning of messages. If a company of soldiers got a message to "pat Frank on the back and help him into the kettle", it could mean that the troops were to assist the French resistance fighters with which they had already communicated by engaging the enemy to allow the resistance time to do whatever they had it in their minds to do. Of course this is an "off-the-top-of-my-head, no-factual-information-whatsoever" example, but it does give you a bit of a taste of what some cyphering was like back then. Of course, we also used single-key encryption which substituted letters and numbers in any manner of ways, but these are less interesting to me than what comes next:

Surprisingly (or perhaps not), the most effective form of encryption used by the United States during the war was something called "Code-Talking". This was the only U.S. code used during the war that wasn't broken by the enemy. The code worked so well that it was kept secret for almost 25 years. The process involved 400 Navajo Indians (all of them United States Marines, I believe) who would recite a message in a coded version of their native language which was written down phonetically. Since there is no written version of Navajo there was no reference for the enemy to refer to. This is the reason that the code was never broken. See that? And all you X-Files watchers thought that it was just a storyline.

Of course the Nazis had their now famous "Enigma" machine which used a system of "dials" which changed the characters in a message to such a degree, and with such seeming randomness, that it was all but impossible to decypher not only the message, but the method of encryption. Luckily, the Allies did crack the code. The method of encryption used in the Enigma is still used today in electronic form on some computer systems. It provides security against casual "snooping", but is quite inadequate against the high power computers in use today by most governments and corporations.

With the advent of affordable mini- and micro-computers, cryptography has fallen from the hands of the aforementioned powers and is now shared by the computing public in general. For years, data compression programs such as ARC, LZH, TAR, and ZIP have provided options to encrypt a file while compressing it. While this type of encryption has the advantage of compressing the data at the same time, it is remarkably easy for someone with the knowhow to unencrypt.

Again, it is adequate protection against casual interest, but not against a concerted effort to ascertain the contents of the encrypted file.

In 1977, RSA Public Key encryption was born and provided computer users with a way to encrypt files easily using what are known as Public Keys. Public Keys enable you to compose, in one way or another, a unique encryption key that not only encrypts a data file so that it cannot be read without your specific key, but also positively identifies you as the owner of that file by virtue of your key.

This removes the biggest problem with encryption using a "key". Since ancient times, to be effective, a key had to be distributed to those people that you want to be able to read the encrypted file. This meant that you would have to distribute the key to those people by a secure means to insure not only that the key did indeed reach them, but that it reached no one who should not have it.

For obvious reasons, this can be difficult. The "Enigma Code" was broken during World War II by the Allies but that information was kept secret to the point of allowing several German attacks to take place even though information on these attacks had been intercepted and decrypted using the broken Enigma code. Most encryption systems up to and including the encryption system currently used by the U.S. Government, the US Federal Data Encryption System, still use what is called a "single key" system. This single key must be given out by a secure means. If you have a channel secure enough to transmit the key, why not just use that channel to transmit the data unencrypted?

The answer to problem of transmitting a code key is a bit like the old adage that the best place it hide is in plain sight. PGP (Pretty Good Privacy) adds to RSA the ability to add a digital "signature" to your key. While anyone can use your Public Key to encrypt a file, only you can decrypt it. To do this, you use the other portion of PGP, your "Secret Key" which is created at the same time you created your public key. This way, anyone who wants to send you a secure message may do so easily simply by using your public key. Since this key is public, there is no need to hide it. Your secret key is another matter. Your secret key can be used to "sign" a message which you then encrypt with the public key of the person you wish to receive it. Okay this is getting a bit confusing, isn't it? Let's use all of this in an example:

Harry and George are pals who both have computers and both use PGP.

Harry wants to send George a message of a sensitive nature. He writes the message and "signs" it using his own secret key and the password or passphrase he used when he created his pair of keys (this signs it without encrypting it) and then encrypts the message using George's public key. When George receives the message his software first decrypts it using his own secret key and his password or passphrase, then verifies the "signature" that is supposed to be Harry's using Harry's public key. Harry's public key can determine with a high degree of certainty whether or not the message actually came from Harry. This is taking for granted, of course, that both Harry and George are the only ones who know the correct password or passphrase for their respective secret keys.

Okay, so now we know that it works, how hard is it to break this miracle of math and logic?

It's incredibly hard as it turns out. Even the lowest grade of RSA/PGP encryption (there are three grades available) uses a 512 bit key. Although this seems like a small key (think of it as 64 characters long), the possible combinations of zeros and ones add up to many billions of separate keys. It has been announced that a 384 bit key has indeed been broken. However, it took three months and approximately fifty workstations. While this proves that no encryption system is impossible to break, it is incredibly time consuming, even using some very powerful computers. The highest level of PGP encryption uses a 1024 bit key. Without going into detail about the mathematics involved, suffice it to say that there are many, many more than twice as many keys possible with 1024 bits as there are with 512 bits.

Now, if this encryption is so great, why isn't it freely available on all the online services?

This is where the PGP story gets interesting. PGP is very difficult to break. Even the United States government would not be able to decode a file encrypted with it. This, says the government, puts them at a distinct disadvantage when dealing with criminals and other enemies. A better alternative, they say, is "Clipper". Clipper is an encryption system conceived by the National Security Agency. Clipper can theoretically be used in everything from the encryption of files to scrambling and therefore securing cellular phone communications. The problem, or at least the perceived problem, with clipper is that the government would hold a master code that would enable it to decode any message, phone call, or any other form of communication that might be encrypted. According to the theory, this master code would be held in escrow and only used when deemed necessary by the courts. Can you say "J. Edgar Hoover"? I knew that you could. So, who would use "Clipper" with something like PGP available? You would. That is, you would if you couldn't get a copy of PGP. The government has classified PGP and related Public Key encryption programs as they have munitions. This means that it is illegal to distribute such a program outside of the United States (and Canada, I believe). For this reason, you cannot simply log onto an online service and download the file. Because of the "munitions classification" most online services that allow the software at all require proof that you live in the U.S. and will not allow access to these files

unless such proof is provided. For this reason, the program is not widely available and remains fairly obscure.

The usual knee-jerk reaction is that this is a government conspiracy to make eaves-dropping on citizens easier. There are fears that the government could outlaw all forms of encryption except for clipper. Borrowing from the NRA, many hold that "If PGP is outlawed, only outlaws will have PGP". The ramifications of this thought are the same as those for firearms. If the government does decide to outlaw certain types of encryption (and I don't think that this will ever be the case), the question becomes "will they ban all types of encryption except for Clipper?" Pig-Latin, anyone?

Political implications aside, PGP provides a remarkable measure of "military grade" privacy for anyone with a personal computer and when used properly ensures almost absolute privacy. This will become more and more important to computer users as the Internet becomes more popular. Picture a scenario in which someone posts a message using someone else's name. The post causes trouble, perhaps of a legal nature, and whether or not the message was actually posted by who he says he is. The "signature" portion of PGP could go a long way toward proving or disproving the authenticity of the post. As online shopping and banking become more popular, the need for security will become more keenly felt and PGP, or something very like it, would help out nicely.

Well folks, that's it for this week. I highly recommend PGP for anyone who wants or requires encryption and suggest that most of us at least look it over.

We'll be back in two weeks with another techno-topic so remember...

High tech is just like low tech, only faster.

Corel Updates STR Spotlight

Corel Newsletter

Dear Strategic Partner:

Greetings from Corel in Ottawa, Canada! This month we are launching a literal flood of new products, announcing joint ventures and scheduling both tradeshow and roadshow participation.

In November Corel will ship German, French, Spanish, and language versions of CorelDRAW 6. CorelVIDEO, CorelXARA, CorelFLOW 3, Photo-Paint 6, Corel Print House, CD Creator 2, CorelSCSI 2.5 and the ArtShow 6 coffee table book and CD-ROM will be available. In addition, we are releasing new CD HOME titles including the Interactive Alphabet, The Complete Herman Collection, World's Greatest Classic Books, Corel Chess, and Internet Mania.

This impressive line-up of new Photo CD-ROMs will ship - Airshows, Spain, American Wilderness, New Guinea & South Pacific Islands, Lighthouses, Costa Rica, Grafitti, Monument Valley, African Wildlife, Exotic Tropical Flowers, Australia's East Coast, Alligators, Crocodiles, & Reptiles, Textures By Frank Scott, Contemporary Fabric, Abstracts & Patterns, Intimate Landscapes, Cards, Agates, Plant Microscopy, Success, Roads & Highways,

Traditional World Dress, Forests & Trees, Color Backgrounds, Ontario, Mammals, Coastal Landscapes, Contemporary Buildings, Fashion Show, Industry, Fields & Streams, Merchant Marine, Great Works of Art: Dutch Masters, Parades of the World, The Mystique of Women, Carrier Aviation, Stamps, Great Works of Art: Portraits, The United Nations: A 50th Anniversary Collection.

Corel launched its new LAN-based desktop videoconferencing system at the Telecon XV trade show in Anaheim, California in October. CorelVIDEO(provides full motion picture quality video within a local campus environment and a high quality connection to the LAN, home or satellite office. The product uses a single pair of existing unused category 5 UTP wires to transport audio and video signals without impacting network traffic.

Key product features include:

- '• Directories: Multiple directories can be created by dragging and dropping user's pictures into the appropriate directory. Simply double-click on the picture of the person you want to call and CorelVIDEO places the call for you. These directories can be viewed pictorially or textually and can also hold additional information such as e-mail addresses.
- '• Calling Features: CorelVIDEO supports traditional features such as do not disturb, call forward, call waiting and on hold. Users can create their own speed dials by dragging the pictures of frequently called people to their monitor desktop.
- '• Data Sharing: Documents can be modified by multiple users, even if only one participant has the software loaded. CorelVIDEO utilizes Future Labs' TALKShow(for its data conferencing solution.
- '• Freeze-Frame User Snapshots: Pictures are taken at predetermined intervals so co-workers will quickly be able to determine if the person they wish to talk to is on the phone, having a meeting or away from his or her office. Users can personally manage the accessibility of these snapshots.
- '• Broadcast Capabilities: CorelVIDEO users can make or tune into live or pre-recorded programs such as product demos or training sessions.

Shipping later this month, CorelVIDEO carries a suggested list price of \$499 US per video desktop. CorelCAM, an ergonomically designed camera, may be purchased at an additional price of \$499 US. Corel's distribution plans for CorelVIDEO are currently focused on the certification of value-added resellers, systems integrators and specialized videoconferencing dealers. For more information please contact Ian McLean, Business Development Manager at Corel. His internet address is ianmac@corel.ca.

Corel Corporation has signed an exclusive licensing deal with England's Xara Ltd. for a product called XARA Studio. This 32-bit vector drawing package runs under Windows 3.1, Windows NT or Windows 95. Xara Limited will continue to develop the product in cooperation with Corel. The name of the new product is CorelXARA. It is a vector and bitmap illustration tool with full anti-aliasing features and powerful special effects. Its well crafted , easy to use interface and low system requirements make it an ideal standalone product for new users who do not require color separations or for those who are looking for a slim, snappy multipurpose graphics tool to pair with their publishing and presentation package. Pricing for CorelXARA has been set at \$289 US.

CorelFLOW 3 is Corel's business diagramming software for Windows 95. It is ideal for business, consumer and technical users who wish to create professional looking organizational charts, family trees, diagrams, schematics or layouts. The package contains 6,400 preset symbols that reflect ANSI and ISO standards, plus thousands of clipart images, photos and templates and 150 TrueType & Type 1 fonts. Key features include Multiple Document Interface (MDI), typographical control, a customizable user interface, smart symbols, OLE Automation and improved layers control. CorelFLOW 3 has a suggested list price of \$199 US and registered users can

upgrade for \$79 US from version 2. Corel will sell both version 2 supporting Windows 3.1 and version 3 supporting Windows 95 concurrently in the coming months.

Corel PHOTO-PAINT 6 is shipping at the end of November as a standalone product. It includes easy-to-use selection tools, movie file editing, natural media brush styles, 77 different filter effects, and fully editable text features. Designed exclusively for Windows 95, Corel PHOTO-PAINT 6 features a Multiple Document Interface and provides all the tools for photo and bitmap file manipulation. This standalone version has a suggested list price of \$289 US and users can upgrade from either Photo-Paint 5 Plus or the bundled version that ships with Hewlett Packard scanners for \$79 US. The upgrade is available exclusively through Corel service and support centers.

Corel Print House is a new graphics product destined for the 'home user' market. It includes tools to create greeting cards, stationery, banners, invitations, business cards, signs, calendars, menus, fax report covers, certificates and labels. The product features an easy to learn, Windows 95 interface with wizards and cue cards to guide users through project creation. Corel Print House includes over 5000 pieces of clipart, 100 fonts, 1000 ready-to-use phrases, 1000 photos, over 900 pre-designed samples and more. Although the product has a suggested list price of \$99 US, Corel is launching this new product in November with a special introductory price of \$29.99 US while supplies last.

Corel CD Creator 2 is a 32 bit application for Windows 95 and Windows NT. The primary audience for this product includes multimedia authors, VideoCD producers, audio enthusiasts, digital photographers, musicians, archivists, data distributors, system integrators and software developers. Version 2 includes extensive OLE 2 support, disc wizard, system tests, comprehensive recorder support, CD Plus Disc format features, a PhotoCD creator application, audio (.WAV) editing software, a VideoCD creator application and the product comes bundled with Corel PRESENTS.

Pricing has been set at \$495 US and the product will ship at the end of November. Users who purchased version 1 can upgrade for \$249 US through Corel Customer Service centers.

Corel CD Creator for Macintosh lets you record CD-ROM, HFS, Hybrid, CD Audio, CD Plus and mixed mode discs. The Disc Wizard guides you through the CD creation process or simply design your disc layout by dragging files or tracks from the finder and record! You can also create your own customized jewel case artwork. Additionally, Corel CD Creator for Macintosh is accelerated for the Power Macintosh! This first version of Corel CD Creator for Macintosh has a suggested list price of \$249 US.

Corel has teamed up with the market leader in recordable CD systems, Pinnacle Micro to introduce a new Recordable CD system priced below \$1000. Pinnacle's new RCD 5020 is a 2X recorder/player with a 1 MB cache buffer. Corel is bundling a custom version of Corel's CD Creator 2 application software which allows for Windows 3.1, Windows '95 and NT compatibility. The hardware/software bundle includes an additional Corel CD-ROM with 1000 pieces of clipart and 100 professional photos. The bundle is slated for full production mid November and is expected to appeal to the long awaiting consumer market.

Selected from more than 7,800 entries for the Corel \$2,000,000 World Design Contest, the 3,000 stunning images in the Corel ArtShow 6 coffee-table book, 2,600 images on CD-ROM, reveal the beauty and genius of computer-generated art and design from around the world. The Corel ArtShow 6 coffee-table book and accompanying CD-ROM has a suggested list price of \$49.95 US. An Artshow 6 CD-ROM only product will be available for \$24.95 US.

Internet Mania will increase user productivity and make gathering information from the Internet fast and easy. A Home Page Author lets users create professional-looking World Wide Web pages and powerful FTP utilities make downloading information easy. With a handy Internet directory, personal stock ticker and scanning features that automatically notify users of updates

to favorite web sites, this product is sure to be on every 'surfers' Christmas wish list. Internet Mania has a suggested list price of \$24.95 US.

Jim Unger's classic Herman cartoon series is now available as a complete collection on CD-ROM. This encyclopedia-style multimedia title features over 5000 cartoons, extensive search and retrieval capabilities, bookmarks, a screensaver, and a wallpaper utility. The Complete Herman Collection from Corel is available in November at a suggested list price at \$24.95 US.

Based on the popular children's book by Alan Rogers, Green Bear is a fun-filled interactive storybook on CD-ROM featuring colorful pages and dozens of activities. Perfect for preschoolers, ages 3 to 6, this enchanting CD-ROM story follows Green Bear through the year as he paints his house to match the colors of each season. This title has a suggested list price of \$24.95 US.

World's Greatest Classic Books includes over 3500 literary works from the greatest writers of all time. Ideal for book reports, research projects, reference or just personal enjoyment, the Classic Books CD-ROM is a must have product. It includes a full text search and retrieval engine, illustrations, full motion video, the American Heritage Dictionary, detailed author profiles, and comprehensive printing controls. With a suggested list price of \$24.95 this product is destined to be a winner.

Corel Chess is a full 3D action chess game for Windows 3.1 and Windows 95. It includes a rotating table, 3D modeled piece sets and elaborately rendered game settings. Users can replay over 4000 renowned chess matches or play another person or the computer through 5 levels of difficulty. Corel Chess has a suggested list price of \$24.95 US.

Welcome to the magical world of the Interactive Alphabet where the humor and excitement of animation will help your child learn the Alphabet. A host of zany cartoon characters act out the story as it is read aloud by a charming narrator. As children explore they learn letters and more than 500 vocabulary words all within a world of sights and sounds. This educational CD-ROM is jam-packed full of delightful animations, music and sound effects to offer any child hours of engaging play-and-learn fun. The suggested list price for this title is \$24.95 US.

CorelSCSI 2.5 includes extensive support for SCSI peripherals, faster CD-ROM and optical drive performance provided by Helix cloaking, and advanced printer support. New features include updated utilities, a device driver for Panasonic's PD drive - the first combination optical/CD-ROM drive on the market, and AutoStart, which simulates autoplay capability found in Windows 95. Additional enhancements include advanced diagnostic tools including CD Plus diagnostics and support, updated scanner drivers with an easier to use interface, and Windows 95 support making it the complete SCSI solution at an unbeatable value. The suggested list price for this product is \$129 US and the upgrade for both OEM and retail versions will be sold direct from Corel for \$49.95 US.

Corel Drivers for Enhanced CD-ROMs allow traditional audio CDs to include multimedia content such as artist biographies, interviews, photos, song lyrics, video clips and more. However, not all existing consumer hardware can recognize these new disc formats. Corel Drivers for Enhanced CD enables many multi-session CD-ROM drives to recognize CD Plus and hidden track music formats in a Windows 3.1 and Macintosh 7.x environment. Watch for this technology to be bundled with upcoming music releases from Sony Music, Columbia Records, Epic Records, A&M Records, EMI Records Group North America and other major labels.

In addition to these new products, Corel is updating CorelDRAW 5 to run seamlessly under Windows 95. A single CD-ROM with updates that fix problems encountered using Windows 95 is available free to CorelDRAW 5 customers. To order, customers can call 1-800-772-6735 in North America or 011 353 1 706 3912 in Ireland. A maintenance release for CorelDRAW 6 is currently in development and scheduled to ship in early December. The maintenance CD-ROM corrects outstanding problems found in revision 6.00.118 and adds enhanced functionality to several of the modules in our flagship product. This update

is also free of charge and available directly from Corel and its service and support providers worldwide.

With the ever-growing product line, Corel is planning many public demonstrations for these new products. In November Corel invites Comdex goers in Las Vegas, Nevada to participate in a Product Showcase event on Tuesday, November 14th at the Flamingo Hilton. The 9 am event features a keynote address by President & CEO, Mike Cowpland and demonstrations of CorelXARA, Print House, and CorelFLOW 3.

A free New Technology Seminar Tour that includes demonstrations of the above new products plus CD Creator 2 and tips and tricks for CorelDRAW 6 is planned for the last 2 weeks of November. To get a complete list of cities in Canada, the United States, United Kingdom, and Australia please call our fax back service at 613-728-0826 extension 3080.

We're pleased to announce this month that CorelDRAW scored the highest in satisfaction out of all software packages surveyed in a recent Home Office Marketing Essentials Study conducted by the California-based InTech Group. Since its inception in 1991, CorelDRAW has won over 215 industry awards for product innovation, satisfaction, excellence and value.

If you would like to discuss details in this newsletter or review Corel product strategy and plans for 1996 don't hesitate to contact me at this internet address: arlenb@corel.ca.

Best regards,

Arlen Bartsch
Director, Sales & Marketing

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A T T E N T I O N-A T T E N T I O N-A T T E N T I O N

Apple/Mac Section
John Deegan, Editor

ISDN Prelims.. STR Focus

ISDN

Integrated Services Digital Network

ISDN, four big letters holding little insight to meaning or potential. Created in the 1980's, ISDN is actually a standard for digitizing all telephone company services.

Since the days of Alexander Graham Bell, voice communications have been carried in analog form. In the 1950's telephone companies realized the benefits of digital signals and began the process of converting their cross-country lines. The last piece in the conversion process is the local loop.

After much hype following introduction of the ISDN standards in the mid-1980's, potential users suggested that ISDN stood for "Innovations Subscribers Don't Need." Early in the 1990's users still found little use for the new standards, mockingly changing the implied meaning of ISDN to "It Still Does Nothing."

However, recent developments bring new meaning to ISDN. In the ISDN Forum on CompuServe, a user hawking value added re-seller services for ISDN suggest a new definition -- "I Smell Dollars Nearby." And, the May 8, 1995 issue of Multichannel News, suggests this more recent meaning for the acronym: It Starts Delivering Now This paper will briefly discuss the technical specifications for ISDN, its history, and some of the implementation issues. Somewhat more in-depth coverage of current implementation issues and current uses of ISDN will be provided.

TECHNICAL

SPECIFICATIONS

ISDN contains the standards for digitizing switched communications (data, video, and other types in addition to voice) from the local telephone company switching hub into user (premises) equipment.

One advantage the standard supplies is the ability to transmit over the already installed twisted-pair copper wire now used for voice (and other analog) communications. Each channel can carry 64Kbps per second. The data, or bearer channel is called the B-channel. Also, another channel, called the D channel (D=delta) is used for signaling.

There are two types of ISDN service. They are basic rate interface (BRI) and primary rate interface (PRI). The BRI service provides two 64 Kbps bearer channels and one D channel. BRI is also referred to as 2B + D.

The primary rate interface, PRI, provides 23 bearer channels and one D channel, and is also known as 23B + D. At the user premises, proceeding from the wall outlet to the device (computer, phone, fax, etc), the service is connected to what's known as an NT-1. From the NT-1 the digitized signal travels through the ISDN Terminal Adapter. In early implementation's, these two devices were separate pieces of hardware that had to be purchased from different sources. Even today, one must be an informed buyer.

However, as the technology blossoms, manufacturers are beginning to build the NT-1 and the ISDN Terminal Adapter into one package. In computer applications, like with most add-ons, the package can be implemented as an external device connected to the computer through a serial port. An RJ-11 phone jack is built into the external device for connection to the incoming ISDN line. The hardware can be also be added internally, as a card placed in an available expansion slot.

The NT-1, Network Terminating Device, serves as the interface between the premises equipment and the local phone company network. The terminal adapter is where the two (or more) channels are integrated into one data stream. It is here that the two 64Kbps bearer channels are combined to create a total thru-put of 128Kbps.

There is no special software required to implement ISDN. The standard, commercial communications packages like Crosstalk, Procom, and PC Anywhere work straight from the box. The special applications like video conferencing

come with software required to operate the application.

A BRIEF HISTORY

Since the beginning days, telephone service has been referred to as POTS -- Plain Old Telephone Service. Voice communication was analog. But, by the 1950's national providers were beginning to understand and deploy digital service.

By the 1970's inter-exchange carriers recognized the full benefit of digital transmission. Digital transmission provided the ability to regenerate the signal without increasing noise levels at repeater sites. By the end of the 1970's an all digital backbone had been deployed on key routes across the United States. In the United States, by the early 1980's the entire telephone infrastructure, except for the local loop and the telephone itself, had been digitized. A global goal being fostered (both then and now) by the United Nations is total digitization of all telephone systems, world-wide. Such an infrastructure will allow international data exchange.

The International Telephone & Telegraph Consultation Committee (CCITT) was the United Nations Committee responsible for establishing and publishing the standards for digital data communications -- ISDN, Integrated Services Digital Networks. The standards were published and presented in 1984. From there, as Communications Week Executive Editor Chris Roeckl puts it, "In the 1980's ISDN was long on hype and short on implementation." However, recent developments have placed ISDN at the cutting edge. Roeckl continues, "But now organizations are flocking to ISDN to improve communications with branch locations and telecommuters."

Presently, the baby Bell's are providing about 300,000 ISDN lines. That's four times as many as there were in 1993. Dataquest, a consultancy, expect the number of ISDN lines in america to triple by 1998. Bellcore expects 13 million ISDN lines to be in service by the year 2000.

IMPLEMENTATION ISSUES

The literature explores many reasons for ISDN's early failures, but there were two seemed to be two main problems that spawned many others. The first issue revolved around the manufacture of switching equipment. While standards were in place, the interpretations and implementation of those standards differed. The two main switch makers, AT&T and Northern Telecom developed equipment that would not inter-operate.

As a result, the local service providers were hesitant to launch ISDN. In a letter to the editor (Communications Week, June 19, 1995) Tom Bader, an ISDN planner at Ameritech explains. He says that Ameritech didn't seriously consider offering ISDN because of a lack of standard switching. Their view was that the big demand for ISDN would occur through different switches, but the switching equipment was proprietary. He finishes by noting that vendors are now supplying switches manufactured to common standards, making full scale deployment of the service possible. The standardization process was led by Bellcore in 1991. The result was NISDN-1.

Three key elements were:

- '• Standardization of equipment and services
- '• Standardization of telephone company procedures for operations
- '• Standardization of procedures for communications between central offices

The second early issue concerned the Federal Communications Commission's ruling on how local telephone companies must charge for the service. When the Baby Bell's began operation in the mid 1980's, the FCC said charges must be sufficient to recover the cost of the local loop's operation. The procedure was to mandate a per channel charge.

In effect, a residential subscriber had one channel of communication in the sense that only one phone call could be handle at a time. ISDN is a multi channel service. As was described above, basic rate interface (BRI) offers two channels, allowing for data transfer one one channel and voice communications on the other.

As a result, the FCC ruled that the user of BRI must be two subscriber line charges, effectively doubling the cost of the service. Earlier this year, Bell Atlantic's "Emergency Petition for Waiver" (2/10/95) asked for relief from the double charge situation.

Relief was granted, and the FCC published "Notice of Proposed Rulemaking" (FCC Document 95-212). The process is one of requesting comment on how to charge for ISDN service. The initial section of the document notes that when subscriber line charges (SLC's) were implemented in the mid-1980's ISDN was not even considered. In the request the FCC suggest five general alternatives with a total of 14 options (for determining ISDN charges) offered. The cut off date for comments was July 14, 1995. Given the move for a deregulated environment, it appears that the FCC will rule favorably for moderate charges, allowing both residential and business users affordable connection rates.

TODAY'S IMPLEMENTATION ISSUES

To be sure, ISDN is in the early stage of adoption, and many implementation issues remain to be solved. It is not yet as simple as plug and play. In a recent survey of network managers using ISDN, 43.2% said the biggest disadvantage of the service is availability. At the local phone company level, availability of ISDN to customers ranges from a low of 18% for GTE customers to a high of 90% for Bell Atlantic subscribers.

At the end of Bell Atlantic's recently ended second quarter (6/30/95) the local telephone company's number of ISDN lines totaled 120,000 up 75% from year earlier levels. Southwest Bell will be spending \$300 million over the next five years to make ISDN service universally available in its service area. The company notes increasing demand as the force driving the conversion-spending.

While demand is on the rise, some feel that usage will not sweep the nation until implementation gets easier. The issue of standards was discussed previously. But, there are still issues of interpretation that apparently need to be addressed. For example, video conferencing needs a lot of speed and bandwidth. ISDN is ideal for the purpose. However, it is difficult to connect unlike equipment (i.e.- from different manufacturers). The standard exists. For video conferencing the standards are found in H.320. But, early in the implementation phase, the interpretations and implementations of the standards vary.

Communications Week recently offered these ISDN implementation procedures:

- '• Take control of the process from the beginning. Don't assume vendors are all-knowledgeable.
- '• Study and understand ISDN the ISDN technology.
- '• Make sure the vendors understand ISDN technology (even the local phone company representatives)
- '• Choose applications & equipment before ordering ISDN service.
- '• Don't let inexperienced installers install your ISDN service.

ISDN lines do need to be configured and conditioned before using. Finally, cost still appears to be an issue although its relevance is fading. In the recent past West Virginia University installed 1,700 Basic Rate Interface (BRI) circuits, but as of 6/5/95 had not deployed them because of cost. As was noted earlier, the Federal Communications Commission is now determining how Subscriber Line Charges (SLC's) should be determined for ISDN users. Presumably, the ruling will favor users with lower charges.

Also, the local telephone companies are realizing elasticity of demand. Price reductions do lead to increased usage that generates greater revenues for the local telecoms. Early in June (1995) Bell Atlantic announced a 60% drop in ISDN charges. For Basic Rate Interface Service, the per-minute, per-channel charge for business use dropped from five cents a minute to two cents a minute. A Bell Atlantic directors explained the drop by saying, "One of the most significant barriers to widespread acceptance of this technology was

price."

UBS securities analyst Linda Metzler, responding to Bell Atlantic's 1995 second quarter results said she was struck by the (financial) contribution of Bell Atlantic 's integrated services digital network and other enhanced vertical services. Analysts expected second quarter earnings per share to be \$1.00. The actual result was \$1.02 compared to 95-cents in the second quarter of 1994.

CURRENT AND FUTURE USES

What ISDN provides is an economical means for creating an the WAN portion of an enterprise network. Prior to ISDN, interconnection could be achieved through rental of expensive, dedicated T1 lines, or, by using the existing analog telephone service via a comparatively slow modem.

Increasingly, there is demand for transmission of graphics, motion, and sound in addition to text and data. Bandwidth is essential for all of these purposes. For example, Schindler Elevator Corp. maintains a centralized image database. Service people equipped with portable PC's can access this "multimedia" information to obtain pictures of known equipment problems and suggestions for elevator service, complete with a supervisor walking them through simple and complicated repairs. ISDN is the medium over which these images (voice, video, and data) are transmitted.

ISDN is also providing locally administered, cash strapped, schools with the ability to interconnect for the first time. In Cincinnati, ISDN has been deployed for the purpose of implementing a supporting administrative network. ISDN will be used this fall to connect 83 schools (PC's, mini's, and servers). Local administration explains that ISDN was selected because it provide the most bandwidth at the best price.

The implementation will replace a manual system for tracking enrollment, daily attendance, student records, and accounting & purchasing information. Also, in-classroom applications, distance learning, videoconferencing, and any client/server architecture will be supported by the new ISDN-based service.

In San Diego, the Technical Museum of Innovation will be connected to San Diego State University via ISDN service. This test will provided needed experience for the museum to offer connection to other schools, allowing students access to the museums resources without the need for costly time away from the local school.

AT&T and MCI recently announced an ISDN based multi-media service that allows customers to place interactive voice and data calls. the service can be used for remote LAN access, videoconferencing, and customer support. Also, both companies envision that the service will allow buyers to browse on-line catalogs. Also, it will enhance interactive support and desktop collaborations.

The on-line service Lexis-Nexis is testing the AT&T WorldWork 800 service. The provider is training new users in use of its on-line service through interactive, multi-media means. Previously, new users went to one of 50 training centers, or, a trainer went to the customer's site.

The laundry list of uses of ISDN includes:

- '• Videoconferencing
- '• LAN to LAN Connections
- '• LAN to Host Connections
- '• Telecommuting
- '• Internet Hook-Up
- '• Remote Backup
- '• Fast fax
- '• Commercial On-Line Services
- '• Remote Systems Management

Compuserve and Prodigy are playing with it. Recently, Compuserve

announced that it would roll-out ISDN connection by means of a 1-800 number. The service expects local ISDN service to be available in 10 cities by the end of August (1995). ISDN almost seems essential for collecting visual images from the World Wide Web. Pacific Bell is pushing ISDN as an efficient means for Internet access.

Our local newspaper, the Richmond Times-Dispatch, is using ISDN to receive ads directly from advertisers on a system supplied by ImageNet, Bernardsville, New Jersey. At the moment the ISDN service is fragmented. A potential user is saddled with the responsibility of selecting the applications, securing the necessary premises hardware, and selecting the correct ISDN service from the local provider. Pacific Bell is working hard to simplify the process by providing turnkey solutions. Currently, PacBell is cooperating with Microsoft and CompUSA to provide a package solution for Windows 95 and Microsoft NT.

But, the full capabilities and the applications that use those capabilities probably remain uncovered. As the service is adopted, creativity and ingenuity will spawn new and more productive uses. One telecommunications recently summed-up the possibilities by saying, "People are putting in ISDN lines for one thing and now they're finding other uses for it. That's the sign of a mature technology."

Let the bits fly!

Atari Jaguar/Computer Section
Dana Jacobson, Editor

Jaguar Section

Atari Layoffs! Mathieson Resigns!
Ruiner Pinball Out! CATnips!
Mall Store Jaguar Only!
Myst & Mutant Penguins in Production!
And Much more...

From the Editor's Controller - Playin' it like it is!

Just when it appeared that things were looking up with Atari and the Jaguar.....BOOM!! Games are coming out, and fairly rapidly at the moment. It's something that Jaguar users have been hoping for some time now. And then, late last week, Atari had a layoff, fired a few employees, and so far, one has resigned. It's not been a pretty sight; and the online community is reacting with a furor that I haven't seen in a long time.

It's not uncommon, especially these days in a business such as Atari is in. But, it appears that this is really hitting close to home and people are wondering what is to become of Atari. Atari's Ted Hoff told us last week that the Jaguar hasn't been abandoned; and I believe him. But, for how long? Much of the development team is gone. VP Bill Rehbock is gone. Jaguar designer John Mathieson has resigned. And, it's still business as usual.

Will there be any more in house development of Jaguar software now?

It's certainly reduced with these layoffs. The "logical" move would be to go outside Atari and "outsource" Jaguar projects. But, and this sounds to me to be a big one, are there development names out there willing to take on the task? We'll learn the answer to these questions soon enough, I'm sure.

I've had a number of interesting phone calls this past week. I got a call from Atari's PR firm, Dorf & Stanton asking how everything was going and what they could do for us here at STReport (and I told them!). We had an interesting conversation and things sounded positive from their perspective. I talked with various sources at Atari and things seem to be business as usual there after the initial commotion. I was talking with Don Thomas and joking around with him when Leonard Tramiel grabbed the phone away from Don and told me that the sounds emanating from the background were really not the sounds of Leonard beating on Don! Both Don and Leonard were unwinding after a long day (I usually call near the end of the day) and both started horsing around when Leonard entered the room.

Anyway, I asked Don point blank whether or not Atari would be sticking it out with the Jaguar. He told me that Atari was committed to continuing support for the Jaguar. He was very firm in his reply. When asked about John Mathieson's resignation, I was told that it had nothing to do with the recent layoffs, but a personal move. Unfortunately, according to Don, the timing was poor.

As I've mentioned online and during numerous phone conversations with various people, these layoffs probably sound more ominous than they really are, except for those personally affected. How it affects the company and the Jaguar, and the userbase, is still unclear. Will "out sourcing" be the answer? Hard to tell c I see good points and bad. All I have at the moment is speculation, so I'll wait until I have more information about what will be occurring in this regard. As to the rumors that Atari will be focusing more attention to the PC side of entertainment software, I don't see any real focus in this direction at the moment.

So, what positive news do we have for you? Good question! Ruiner Pinball is out and the reaction so far has been extremely favorable. Expect a review of this new game in these pages soon. I had hoped to have the review of Hover Strike: Unconquered Lands, but the news from Sunnyvale took most of my time this past week and the final touches for the review had to take a back seat. We also had a few other things planned, but we're putting them off until later.

Anyway, back to the positive news and information. Would you believe a Jaguar only store? You bet! Longtime Atari computer dealer, Run PC, has recently opened a store in a mall. It sounded like it was one of your typical "kiosks" that just contains a small sampling of stock, but I'm told that it's much more than that. The store is situated in the middle of the mall, with four walls (not your pre-conceived idea of a kiosk) and has demo machines allowing people to get a hands-on feel for the Jaguar.

Plenty of games and other accessories for people to check out. It sounds like this store is not a permanent fixture and likely to only be around until after the holidays; but it's a terrific idea that could catch on. It might also be a terrific permanent idea if business continues to be successful as it has been so far. We'll keep you posted on any new developments. Great idea, Run-PC! I'm sure that we're going to be learning more about Atari's plans and effects of their new "re-structuring" as time passes. It's certainly going to be an interesting next few months. Stay tuned!

Until next time...

Current Available Titles

CAT #	TITLE	MSRP	DEVELOPER/PUBLISHER
J9000	Cybermorph	\$59.99	Atari Corp.
J9006	Evolution:Dino Dudes	\$29.99	Atari Corp.
J9005	Raiden	\$29.99	FABTEK, Inc/Atari Corp.
J9001	Trevor McFur/ Crescent Galaxy	\$29.99	Atari Corp.
J9010	Tempest 2000	\$59.95	Llamasoft/Atari Corp.
J9028	Wolfenstein 3D	\$69.95	id/Atari Corp.
JA100	Brutal Sports FootBall	\$69.95	Telegames
J9008	Alien vs. Predator	\$69.99	Rebellion/Atari Corp.
J9029	Doom	\$69.99	id/Atari Corp.
J9036	Dragon: Bruce Lee	\$39.99	Atari Corp.
J9003	Club Drive	\$59.99	Atari Corp.
J9007	Checkerered Flag	\$39.99	Atari Corp.
J9012	Kasumi Ninja	\$69.99	Atari Corp.
J9042	Zool 2	\$59.99	Atari Corp
J9020	Bubsy	\$49.99	Atari Corp
J9026	Iron Soldier	\$59.99	Atari Corp
J9060	Val D'Isere Skiing	\$59.99	Atari Corp.
	Cannon Fodder	\$49.99	Virgin/C-West
	Syndicate	\$69.99	Ocean
	Troy Aikman Football	\$69.99	Williams
	Theme Park	\$69.99	Ocean
	Sensible Soccer		Telegames
	Double Dragon V	\$59.99	Williams
J9009E	Hover Strike	\$59.99	Atari Corp.
J0144E	Pinball Fantasies	\$59.99	C-West
J9052E	Super Burnout	\$59.99	Atari Corp.
J9070	White Men Can't Jump	\$69.99	Atari Corp.
	Flashback	\$59.99	U.S. Gold
J9078E	VidGrid (CD)		Atari Corp
J9016E	Blue Lightning (CD)	\$59.99	Atari Corp
J9040	Flip-Out	\$49.99	Atari Corp
J9082	Ultra Vortek	\$69.99	Atari Corp
C3669	Trayman	\$69.99	Ubi Soft
	Power Drive Rally	\$69.99	TWI
J9101	Pitfall	\$59.99	Atari Corp.
J9086E	Hover Strike CD	\$59.99	Atari Corp.
J9031E	Highlander I (CD)	\$59.99	Atari Corp.
J9061	Ruiner Pinball	\$59.99	Atari Corp.

Available Soon

CAT #	TITLE	MSRP	DEVELOPER/PUBLISHER
	Dragon's Lair	TBD	Readysoft
	Demolition Man	\$59.99	Atari Corp.
J9069	Myst (CD)	\$59.99	Atari Corp.
	...Mutant Penguins	\$59.99	Atari Corp.
	Atari Kart	TBA	Atari Corp.
	Battlemorph	\$59.99	Atari Corp.
	Breakout 2000	\$49.99	Atari Corp.
	Supercross 3D	\$59.99	Atari Corp.
	Fever Pitch	TBA	Atari Corp.
	Missile Command 3D	TBA	Atari Corp.

Hardware and Peripherals

CAT #	TITLE	MSRP	MANUFACTURER
J8001	Jaguar (no cart)	\$149.99	Atari Corp.
J8904	Composite Cable	\$19.95	
J8901	Controller/Joypad	\$24.95	Atari Corp.
J8905	S-Video Cable	\$19.95	
	CatBox	\$69.95	ICD
J8800	Jaguar CD-ROM	\$149.99	Atari Corp.
J8908	JagLink Interface	\$29.95	Atari Corp.
J8910	Team Tap		
	4-Player Adapter)	\$29.95	Atari Corp.
J8907	Jaguar ProController	\$29.95	Atari Corp.
J8911	Memory Track	\$29.95	Atari Corp.
J8909	Tempest 2000:		
	The Soundtrack	\$12.99	Atari Corp.

Industry News STR Game Console NewsFile - The Latest Gaming News!

CONTACT: Patricia Kerr or Jennifer Hansen
Shandwick USA
800/444-6663 or 310/479-4997

Atari Corporation and Run PC Open Jaguar Mall Store
Spectacular Grand Opening Sells Out of Hot System Titles

LONGMONT, CO (November 7) -- Run PC, a regional retail leader in computers and next generation game systems has opened the first Jaguar Mall Store. The store is located inside the 550,000 square foot Twin Peaks Mall in Longmont, Colorado and is anchored by JCPenny, Sears and Joslins Department Stores. The prototype store exclusively demonstrates and sells the Atari 64-bit Jaguar home entertainment system and the Lynx handheld color gaming system. Atari Corporation has provided high-end interactive merchandising materials including arcade style "hands-on" displays, banners and signage.

"We are proud to have worked with Run PC and to have opened the first ever Jaguar-only Mall location," stated Ted Hoff, Atari's President of North American Operations. "We support the concept of selling product in locations where customers can see and play the Jaguar system themselves."

In the first two days since opening on Saturday, November 4, Run PC has sold out of the most popular Jaguar related products. "Everyone who purchased a Jaguar had to have a copy of Alien Vs. Predator," stated Jon J. Willig, President of Run PC. "It's clear that I have to re-examine my staffing and inventory to prepare for greater sales throughout the Holiday Season," Willig added, "As a retailer we strongly believe in the Jaguar system. For less than \$150, we are finding that the system literally flies off the shelves, outselling competing systems sold in other mall stores many times over. Atari has always been responsive to our needs and requests. It's a pleasure to serve our customers with their support."

The Jaguar-only store is open during mall hours and is located in the Twin Peaks Mall on South Hover Road in Longmont, Colorado. It is the largest shopping mall in Central Boulder County with a trade area population of well over 310,000.

The Atari Jaguar is the world's first 64-bit multimedia gaming system and the only game system manufactured in the United States. About 40 powerful game titles are already available for the Jaguar including award-winning hits like Doom and Tempest 2000 as well as new releases such as Highlander, Ruiner Pinball, Pitfall! and Time Warner Interactive's Power Drive Rally. Soon to be released titles include NBA Jam Tournament Edition, Myst, Primal Rage and Zoop.

For more than twenty years, Atari Corporation has provided consumers with high quality, value-priced entertainment. Atari Corporation markets Jaguar the only American-made, advanced 64-bit entertainment system and is located in Sunnyvale, California.

Atari is a registered trademark of Atari Corporation. Jaguar and Lynx are trademarks of Atari Corporation. All other products are trademarks or registered trademarks of their owning companies. Alien and Predator are trademarks and copyrights of Twentieth Century Fox Film Corporation. All rights reserved. Used under sublicense from Activision.

Sega Games Come to PC CD-ROM

Sega PC, Sega of America's new computer games division, has begin shipping enhanced PC CD-ROM versions of many of the company's video game titles this month. Comix Zone and Tomcat Alley are set to ship this week. Ecco the Dolphin is scheduled to ship prior to Thanksgiving.

Sega PC also says its Virtual Fighter Remix game is now available in a bundle with a multimedia accelerator from Diamond Multimedia. Sega's PC games are compatible with Pentium PCs running Windows 95. "These games are optimized for the PC with faster frame rates, added colors, higher resolution graphics, more difficulty levels, added control options and Plug-and-Play ease of use," says Curtis Broome, Sega PC's marketing manager.

Sega PC titles will be sold through Sega's traditional distribution channels, and in such PC retail locations as CompUSA, Computer City and Electronics Boutique.

Jaguar Online STR InfoFile Online Users Growl & Purr!

CATnips... Jaguar tidbits from Don Thomas (95.11.05)

I think my son, Kyle, is into sports as much as the Pope is into religion. Maybe more, but it is hard to imagine any less. <g> Every chance he gets he is rollerblading, shooting hoops, swinging a bat or challenging some kids to a game of street hockey. As goalie on his soccer team, he has enjoyed an undefeated season and he aspires to travel with an international soccer team one day. (Keep in mind he is only twelve. However, anyone that wears a size thirteen shoe gets my full attention no matter how old they are. <g>)

So the moral of the story is anything that keeps my son away from a sunny California day must be awesome. I think Ruiner Pinball can be thrown in that category along with a few other Jaguar titles too (like Brutal Sports Football and International Sensible Soccer. What else? <g>).

In a world where multimedia entertainment is exploited everywhere, it's got to be tough for software engineers to discover new ways to apply their talents. In Ruiner Pinball, High Voltage Software has accomplished that task

very well. Ruiner Pinball is a perfect blend of pinball arcade action and the interactive benefits of a high-performance, next-generation video game system.

Ruiner Pinball will captivate you with new twists to the look and feel of traditional arcade-style pinball action. In Ruiner, the action takes place on two integrated pinball game machines side-by-side. The manual offers a storyline, but the fun is indescribable. The features I like are multi-ball play, high-response flippers (and lots of them), an easy to see ball against the background, constant scoring updates AND full screen pinball play areas. I also like the fact that gamers can bypass the ceremony to award bonus points.

In Tower Pinball, included on your Ruiner Pinball cartridge, there are three highly detailed playfields connected end-to-end. The theme is spooky and sinister rather than militant, but the fun marches on. For hours during my first night, I played alternately between Ruiner Pinball and Tower Pinball. Now both games have DONALD as the top four high scores. <g>

It will be tempting for some people to compare Ruiner Pinball to Pinball Fantasies by C-West. To me, the games are entirely different and as someone who loves to play pinball, I'm glad I have both cartridges. Pinball Fantasies offers as close to the feel of actual arcade as you can come. Ruiner Pinball adds the element of high-end video blasting to the excitement. There are mobilized tanks, flocks of flying fiends, missile launchers, cross platform ramps, pulsating skulls and a variety of other unorthodox pinball features.

Ruiner Pinball has shipped and, since it is cartridge based, it is compatible with ALL 64-bit Jaguar gaming systems. Ask your retailer for it by name and tell him Don from Atari sent you. <g>

Atari Corporation Presents Pinball Like You've Never Seen It Before
Ruiner Pinball for Jaguar 64 hits retail shelves

SUNNYVALE (November 6) -- With its third software release in as many weeks, Atari Corporation continues to provide the home entertainment system market with new titles for both their Jaguar 64 system and CD peripheral. Ruiner Pinball, a high speed interactive pinball game for the Jaguar 64 system, hits retail shelves today.

Ruiner Pinball offers two games within the single title: 'Ruiuer' and 'Tower.' Both feature fast pinball action with all the bells, bings, clunks and pings from an arcade pinball game---except with Ruiner Pinball, gamers can keep their quarters at home!

The 'Ruiuer' selection features a double-wide table with intense gameplay and real arcade response as gamers must protect their country from a foreign attack. 'Tower' transports gamers to an eerie castle in a strange land where they must fight an evil Sorceress. If the triple-length table in 'Tower' doesn't provide enough of a challenge, gamers must also cast three spells in order to defeat the Sorceress and demolish the castle.

In addition to the several dimensions of gameplay, Ruiner Pinball boasts 3-D animated enemies and targets as well as arcade table sound effects and a "Tiny Cam," which offers a picture-within-a-picture.

"Atari Corporation has elevated pinball into Next Generation-caliber entertainment," said Ted Hoff, Atari Corporation's President of North American Operations. "Ruiuer Pinball is just one of fifteen exciting titles Atari will release this holiday season for the Jaguar 64 system and CD player."

Ruiner Pinball is rated K-A (appropriate for kids through adults), is available in stores nationwide and has a suggested retail price of \$59.99.

For more than twenty years, Atari Corporation has provided consumers with high quality, value-priced entertainment. Atari Corporation markets Jaguar the only American-made, advanced 64-bit entertainment system and is located

in Sunnyvale, California.

More TV Advertising...

Atari has just confirmed a beefed up advertising schedule with its agency for the Holiday Season. Look for enhanced schedules during the weeks November 6 and November 20. Shows include the Comedy Channel on cable, ESPN (Big 10 Football), the SciFi Channel's presentation of the Star Wars Trilogy and select USA movies like Revenge of the Nerds, Uncle Buck and Stop Or My Mom Will Shoot.

Get your video tape now while they last...

Atari's Dealer/Demo tape is selling fast. A lot of people have asked what demos are on it, so here's a list:

CARTRIDGE SOFTWARE

Super Burnout
White Men Can't Jump
Ultra Vortek
FlipOut!
Atari Karts
Pitfall
Rayman
Ruiner Pinball
Charles Barkley Basketball
Zoop
Phase Zero
Defender 2000
Attack of the Mutant Penguins

CD SOFTWARE

Blue Lightning
Dragon's Lair
Hover Strike
Highlander
Baldies
Myst
Commander Blood
Iron Soldier II
Battlemorph
Max Force
Primal Rage
Brett Hull Hockey
Missile Command

3D

Super Cross 3D

Breakout 2000

I-War

ADVERTISING

DEMOS OF THE ADS . LIGHTBULBS AND PC INTRO.

The tape is just \$8.95 plus \$4.95 shipping and handling. The tape is professionally produced, labeled and boxed. It makes a great gift or it is a great way to determine a gift by previewing the software featured on the tape. Available to North American destinations only. California residents, add .69 sales tax. MasterCard or Visa accepted. Call 1/800/GO-ATARI during business hours Monday Through Friday or send your order via E-Mail to 75300.1267@compuserve.com or fax your order to 408/745-2088.

From the Internet (thanks Frans) ...

In rec.games.video.atari, drichard@cis.ohio-state.edu
(daniel l richards) wrote:

I picked up Highlander CD today and here is what I think. This is a very well done game. The backgrounds are some of the *best* I have seen in a video game and the storyline is quite cool. Animated sequences are put in just right to enhance gameplay, not make up for it. If you enjoyed the Alone In The Dark games for the PC (i did) you will most likely love this game. The control takes a little while to get used to but once you do - gotta love those leaping over- head chops! Sure, I died a few times and was chased around for awhile but once *I* had a sword...heh

heh:) Oh well, I really think this is a great game - BTW, anyone figured out how to get into that chest yet?

-- Dan Richards drichard@cis.ohio-state.edu

In rec.games.video.atari, theexodus@aol.com (TheExodus) wrote:

WHAT IN THE HELL HAS ATARI GONE AND DONE!? I purchased the cartridge version of "Hoverstrike" when it hit shelves, and was enjoying the hell out of it until yesterday... when the CD version arrived from Atari Corp., and as unbelievable as this may sound: it is EXCELLENT!!

Firing photons is so damn cool... the photon is not just a bitmap scaled into oblivion as it zooms off into the distance, it actually casts a glow around itself (this little trick was used in "The Unnatural Night" mission of the cartridge version, but now it's everywhere).

Polygons... it's official, tech-specs. are as worthless in determining a game system's performance, as the length a man claims his penis to be is in determining whether or not a bride will enjoy her honeymoon. Texture-mapped polygon targets abound in "Hoverstrike", and they do not dissolve into a field of random white pixels when they explode.

Speaking of "Total Eclipse Turbo"... "Hoverstrike CD" takes Jaguar owners today, where Crystal Dynamics' "3rd generation of 32-bit software" promises to take 3D0 and PlayStation owners... someday.

With the release of "Hoverstrike" and "Highlander" this week, I have the feeling that not only is Atari holding out on us, but that the Jaguar is no longer stuck in second gear...

-- XE

Atari's John Mathieson comments on his leaving Atari as well as questions about his future, on CompuServe's Jaguar Forum:

Fm: John Mathieson (Atari) 74431,1702
To: James Thornhill, Jr. 102172,2761

Thank you for you flattering comments, however:

> 1) Would it be possible for John Mathieson to get control of the Jaguar and Jaguar 2 from Atari?

Atari owns Jaguar outright. The only way would be to buy it.

> 2) What would Mr. Mathieson have to do to get the necessary financial backing. Could he approach someone like Acclaim, IBM, Id, Nolan Bushnell or others and get them to take a shot at owning the Jaguar.

It would take a lot of money to buy the rights, and then continue to operate the product. Many tens of millions. How would you persuade them?

> 3) Would/will Atari allow him to form a competing company?

I don't think this is the problem, however...

> 4) Would John Mathieson even consider such an idea?

This is all very well, but I am an engineer, not a businessman. I do not have the track record or experience to put together such a deal, even if I wanted to, which I don't. But thanks for the suggestion.

I am leaving Atari at the end of this week to join a startup. I can't tell you anything about it yet, but watch out in a year or so. The company is called VM Labs.

Its been fun in this forum for the last couple of years. Things people say here are listened to at Atari. I hope you all continue to enjoy the great Jaguar games that are out and are still coming.

John

ONLINE WEEKLY STReport OnLine

The wires are a hummin'!

PEOPLE... ARE TALKING

On CompuServe

compiled by
Joe Mirando
73637,2262

Hidi ho friends and neighbors. I've got some painful news (well, painful for me anyway) to tell you and I've always believed in just blurting bad news right out so here goes...

It may be that People Are Talking's days are numbered. As you know, this column has always centered around the posts from CompuServe. Well, CompuServe will soon be dropping support for generic terminal programs. I don't understand what CompuServe will gain by doing this, but they are determined that, by the beginning of the year, they will be accessible by special program only. The coding necessary for this program is proprietary and CompuServe has shown no interest in making it available to any platform other than PC or Mac. Therefore, I won't be able to access CompuServe to gather these little jewels because I don't have a PC or Mac and don't have the resources to get one. And, truth be told, I don't really see any need for a Mac or a PC for anything other than CompuServe access. So I guess that only time will tell.

But, since the day of conformity in online access has not yet come, let's get on with those little pearls of wisdom and other tidbits available (for the time being) right here on CompuServe.

From the Atari Productivity Forum

Sysop Ron Luks tells us that...

"CIS is going to be dropping TerminalPrg interface to the service in the months ahead..."

Frank Heller asks Ron:

"What impact does this have on the Atari using population?"

Ron tells Frank:

"It means that when the old forum software eventually goes away, you won't be able to log on with an Atari computer. It'll be the same situation as AOL and the Microsoft network or Prodigy. To access the service, you'll need to run the services proprietary software (or licensed 3rd party versions)."

Martin Ruffe mirrors my own thoughts:

"Hey Compuserve - this is very bad news. You can't do this unless you plan to release AtariCIM. Please reconsider. Many users must come onto CIS via non PC/MAC terminals/home computers."

Alberto Sanchez adds:

"I call with my Atari, and don't have any plans on buying a PC or Mac only for having access to RESTRICTIVE systems. I will UNSIGN CIS if I can't access with my home computer. If this thing finally happens, we'll see on Internet (by the way, the only non restrictive "space")

Good luck, and continue supporting the VERY BEST user-friendly OS (even if the Tramiels don't fight for it anymore)."

Our friend Albert Dayes of Atari Explorer Online Magazine tells Alberto:

"I guess it is time to start using feed back and start voicing our concerns early."

Sysop Ron explains the decision (kind of):

"I'm afraid that there is no chance for an AtariCIM from CompuServe. Nor for an AmigaCIM. The number of people who log on via other computers is incredibly small and shrinking daily."

Our own Atari Section editor, Dana Jacobson tells Sysop Ron:

"That's gonna really suck!! What's the sense of having an Atari Computing Forum when Atari users won't be able to access it?!? Is there a timetable for this occurring?"

Sysop Jim Ness jumps in and tells Dana:

"Nothing official. But, WinCIM v3.0 is supposed to be designed specifically for the new software, and 3.0 is said to be due next spring (according to news releases from CIS). So, that's a clue.

There has been a LOT of objecting in the "sysop underground" about this, and despite the very high noise level, CIS has avoided any comment about how forums like this one are going to be handled. However, from unofficial sources, it appears certain areas like this one will continue to use the old hosts and software for some period of time, while the rest of the system will switch over to the new hosts and software.

I don't have the official numbers, but well over 90% of the CIS membership have PCs or Macs. The rest is Atari, Commodore, UNIX, and a slew of older forgotten machines.

For the ST, I guess the only workable solution will be the Gadgets emulator."

Frank Heller tells Sysop Jim:

"For what it's worth... I've been logging on and D/L'ing Atari files with my Mac Powerbook 520c. Yes, I know: sacrilege. However...since I started using the Mac, my CompuServe bills have been reduced DRAMATICALLY. Yes, it's nice to come into the service and talk about using Atari's but it is totally stupid to use 'em to run around this service...and let's not even get started on the ability to go on the net."

Sysop Ron Luks tells Dana:

"I don't have a time table yet, but I will do my best to keep the old software available to this forum so that people can still log on with their Atari's. It will mean that this forum may not have access to all the new features CIS plans to add to the system, but at least Atari owners will be able to log on with their systems."

Dan McNamee at Atari tells Ron:

"Personally I think this is a very bad move unless they plan to support all of the old "dead" platforms. I only have a STacy at home (no PC or Mac), and at work I use a TT for most of my access since my PCs are tied up CD mastering applications. If I can't log on to CIS using QuickCIS or STalker, then I can't log on at all. Even on the few occasions when I have used WinCIM, I really didn't like it that much since I never really felt in control like I do in text mode. The program overall didn't feel intuitive to me, and I had a hard time making my way around the service even though I knew where I wanted to go. Also retrieving messages for browsing offline was difficult, and reading them was a nightmare at best (and I assume that reading works the same way online and offline). If the future is CIM only, then it looks very dim to me.

I also know from talking to people online that there are a LOT of people that only have or use non DOS or MAC systems, and they will no longer be able to use the service either. I'm sure these users are a VERY minor part of CISs overall userbase, but losing any customer, especially in this manner (forcing them out when they don't want to leave) is very bad.

I hope management reconsiders their position on this for the sake of all users that don't use the "accepted" standard machines."

Sysop Jim tells Dan:

"CIS is being very (I mean *VERY*) closed mouth about their plans for members who do not own a Mac or PC or equiv.

The closest whisper we have been able to get indicates that forums such as this one will continue to exist on the older hosts, so that existing methods can still be used to access them.

Other forums will migrate to the new hosts, and there will be no software on those hosts designed to be accessed via a standard terminal program. This has already happened with some CIS services."

Ron Luks adds:

"Currently over 85% of the access to this system is done under HMI (CIM) and by the end of the year, that will probably be closer to 90%. That non-HMI percentage includes mostly TAPCIS and other auto-navigator users and those programs are being upgraded for HMI support. Probably less than 2% and maybe less than 1% of the entire worldwide userbase uses ASCII-only, non-upgradeable systems (like the Atari)."

Peter Joseph posts:

"As a fellow user of both Atari and PC systems, I felt the same way you did when I first used WinCIM. In fact, the first time I used WinCIM I didn't even realize I was online for a minute or so. ;-) But, like the early days of my ST, I got used to it and soon took the plunge into a navigator (CSNav). It too was a scary start but with time that too has become very easy and =very= convenient. I wouldn't go back to terminal mode if you paid me now. Well, it depends on how much you pay me.
<grin>

It's unfortunate if CIS has decided to essentially drop support for the older systems, but I guess if they expect to stay competitive and on the leading edge of technology it won't be by maintaining support for unsupported systems that are no longer on the technology roller coaster. Of course, I'm not speaking only of Atari, but all of the companies who are now not supporting their older systems. CompuServe's a good service. Give WinCIM and CSNav another try before jumping ship completely. I will miss the Atari forums if they indeed become extinct. <frown>"

Michel Vanhamme wonders aloud:

"I wonder if this will only affect Atari/Amiga/Unix(?)... users. I thought a lot of the PC navigators around actually 'navigate' in terminal mode, which would make sense, if only for the increase in speed?

And I do wonder what an imposed graphical interface has to offer for reading messages? In other words, if they want to put a graphical layer over it, fine, but why should they remove the older terminal mode layer?"

Sysop Jim Ness tells Michel:

"The 3rd party PC and Mac navigators are being readied for the change. They may look the same on screen, but they'll operate using the new protocols, rather than plain old ASCII."

Sysop Ron Luks adds:

"That's a common misunderstanding which Windows 3.1 users often make. In Windows 3.1, you essentially have a DOS system with a GUI "laid on top" of the basic DOS system.

CompuServe's service is NOT one service with an optional GUI layer on top for a friendlier (?) reader interface. CompuServe is currently TWO

distinct sets of software programs accessing a common data set in the forum setting.

If you log on using an ASCII program, you run a set of programs on CompuServe's mainframes which are a character-based interface to the common data set.

If you log on under HMI you use a different set of programs to access the common data set.

(The data set-- in the case of forums-- is the actual message headers, message text, library files, membership database, etc.)

For the past 6 years, CompuServe has been adding features equally to both the character based (ASCII) interface and the HMI (graphical) interface. Its been a big cost and a lot of work to implement changes in both interfaces to make them appear equal. CIS has hit the technological wall in that some of the newer features which can be implemented easily in the graphical interface are very difficult and system resource intensive to implement in the ASCII interface.

Much of this goes to a very basic computer concept called client-server computing. This concept is at the core of networked system. It hits the fundamental nature of the commercial online service business. You've probably never heard someone explain this in this detail so save this message. [grin]

Under terminal emulation (ASCII) interface, your system is essentially a dumb terminal. 99% of the computing work is done by the host end (the server). under HMI (host-micro interface) software, the 'computing load' can be divvied up between the client PC and the host server. As the information service drastically increases the membership base, the number of clients that are served by each host system increases dramatically. This places a huge burden on the CPU of each host server for the same amount of computing operations. Under client/server software, to handle this increased system load, many operations can be shifted to the client software. Under typical old mainframe (terminal emulation software) 99% or 100% of the increased system load must be borne by the mainframes. This architecture results in the inability to handle increased system capacity in an efficient manner.

CompuServe, like the other major online services, needs to dramatically increase the overall size of their customer base to make up for the drastically reduced hourly connect charges. (\$22.80/hour in 1992 vs \$1.95/hr in 1995) Its become a volume (commodity) business and cost factors are critical to the business model now.) Shifting 5%, 10%, 20% of the 'computing load' to the client PC can make the difference between a profitable system and a horribly money losing system...

The PC/MAC only situation is now the only standard at the other 3 main services (AOL, Prodigy and Microsoft Network). The other smaller services are going the same route. CIS held out for as long as it possibly could but ASCII is simply not up to the multimedia task that the VAST majority of customers want. Complaining about lack of ASCII is like complaining when people stopped writing new software for your old 8-bit computers. I sympathize because I use my Atari everyday and I hate the current WinCIM. Its everybit as bad as you describe. However, the new 3.0 version is a knockout."

Well folks, there's lots more stuff available on CompuServe this week, but I'm too heart-sick to continue right now. If you'd like to see what else was said this past week, log on to CompuServe (while you still can).

Remember to listen to what they're saying when...

PEOPLE ARE TALKING

STReport CONFIDENTIAL "Rumors Tidbits Predictions Observations Tips"

' • Sunnyvale, CA Atari Lay Off includes more than 20 People!

Super Snoop, Hard at Work came up with all the details on the most recent layoff at Atari from a recent Ex Atari Employee. He reports; "On Thursday, November 2, 1995.. Atari had a huge layoff. Word is that 20 people were given their pink slip walking papers.

Notable names include:

Bill Rehbock, Craig Suko, Denis Fung (Craig and Denis wrote FSMGDOS and worked on the Jaguar game: Hoverstrike and Hoverstrike: Unconquered Lands), Dave Stagis (of NEOChrome fame and various other Jaguar projects, and Lynx projects, and the software for the SLM804 laser printer), and many others. I think Rob Zydbel is gone as well. Mike Fulton and Norman Kowalefski (from Atari Germany) were let go in the last round of layoffs. They have ONE developer support person right now: Scott Sanders.

They got rid of almost all of the artists and all of the programmers. They kept the testing staff for now. Word is that they are planning to become a software company that just distributes and markets video games for various machines. I couldn't get a straight answer from people about the Jaguar.. that leads me to believe that it is basically dead once they sell all that they have left to offer. I think the testing folks are still around to push the games in the pipeline through the system and out the door. Then I suspect that they will be laid off as well. Many here feel the software company story is a scam to keep things running until they can close the doors.

I am sending this report now because there are very few people left there that I care about. The picture is bleak. The few remaining that I know will probably leave within the next 30 days. Therefore, I'm not concerned about what happens there now. Especially since many believe Atari is playing "Happy Face" so they can suck the remaining loyalists into buying a dead-end product. Its a typical Tramiel Treatment session. The only thing they're interested in is grabbing what money they can before they shut down.

Craig has worked for the Tramiels since the early days of Commodore... back in the very early 80s. Incredibly, they laid him off like anyone else. That was the ultimate proof these people don't give a damn about anyone but themselves. Another example.. they're working the testing guys on 6 day work weeks and will, more than likely, lay them off as soon as they're finished testing the games left in the pipeline. It would be nice to hear what Ted Hoff and Don Thomas have to say after all that "everything is better than ever!" banter they had recently offered..

Editorial Quickies!

Famous last words...

"Atari Jaguar will have 200 games..."

Guess Who??

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